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1938

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SOUTHWESTERN MONUMENTS

MONTHLY REPORT



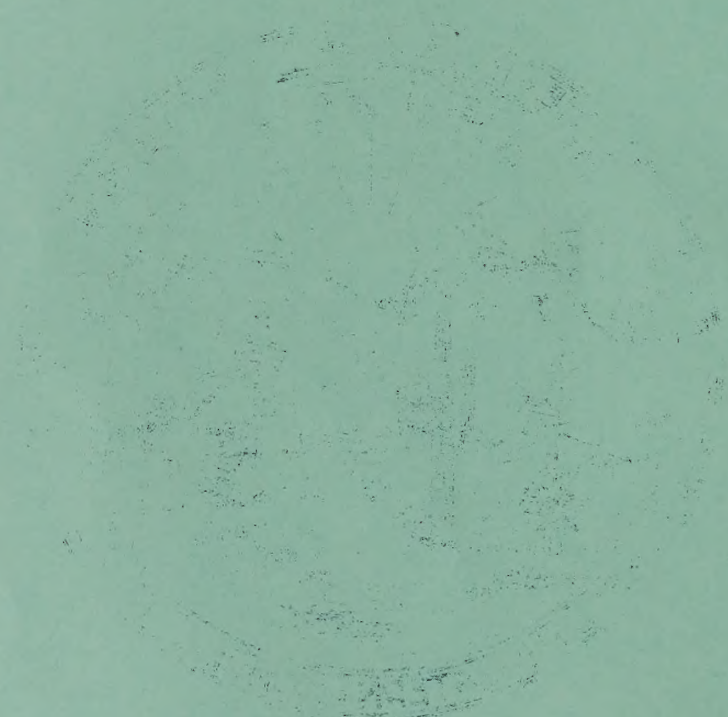
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SOUTHWESTERN MONUMENTS

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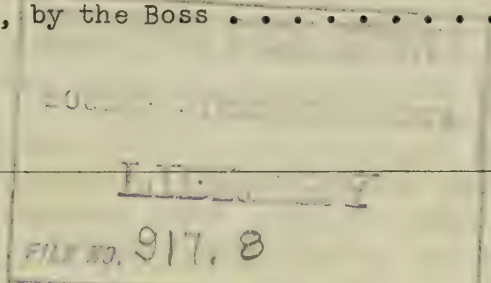
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SOUTHWESTERN MONUMENTS PERSONNEL

HEADQUARTERS, Southwestern Monuments, Coolidge, Arizona; Frank Pinkley, superintendent; Hugh Miller, assistant superintendent; Parke W. Soule, chief clerk; J. H. Tovrea, assistant engineer; Dale S. King, assistant park naturalist; Charlie R. Steen, junior park archeologist; Natt N. Dodge, junior park naturalist; Luis A. Gastellum and Russell Landry, clerk-stenographers; Ima G. Goodwin, CCC clerk; F. E. Stonehocker, machinist; J. L. Baker, utility man.

FIELD STATIONS; MONUMENTS, 1937; POST OFFICE; PERSONNEL; AREA IN ACRES

1. <u>Apache</u> ; 1,000; Flag, Utah; Harry Reed, ranger. - - -	4,520.00
2. <u>Aztec</u> ; 14,500; Aztec, New Mexico; T. G. Miller, - -	25.88
3. <u>Bandelier</u> ; 14,380; Santa Fe, N. Mex.; G. G. Harkins, - -	26,026.20
custodian; I. McNeil, T. Onstott, J. M. Spuhler, temporary rangers, George Sholly, grader operator; 3 CCC guides.	
4. <u>Canyon de Chelly</u> ; 1,422; Chin Lee, Arizona; John Will - -	83,840.00
Faris, custodian; Bill Lippincott, W. Spires, rangers.	
5. <u>Capulin Mountain</u> ; 23,100; Capulin, N. Mex.; H. L. - -	680.37
6. <u>Casa Grande</u> ; 33,631; Coolidge, Ariz.; A. T. - -	472.50
custodian; Don W. Eggermayer, park ranger; J. - -	
Coyle, V. Scholz, T. Savage, J. Holt, and L. Mongerro, CCC guides and helpers.	
7. <u>Chaco Canyon</u> ; 8,014; Chaco Canyon, N. Mex.; Lewis T. - -	21,512.37
McKinney, custodian; Homer Hastings, temp. ranger.	
8. <u>Chiricahua</u> ; 9,288; Douglas, Ariz.; Frank Fish, cust.; - -	10,694.80
Gordon Philp, park ranger; H. Bennett, Wm. Stone, H. Minton, CCC guides and helpers.	
9. <u>El Morro</u> ; 2,298; Ramah, N. Mex.; R. R. Budlong, cust. - -	240.00
10. <u>Gila Cliff Dwellings</u> ; 250; Cliff, N. Mex.; no custodian - -	160.00
11. <u>Gran Quivira</u> ; 4,414; Cran Quivira, N.M.; G. L. Boudrey, cust. - -	610.94
12. <u>Hovenweep</u> ; 500; Cortez, Colo.; A. Peterson, temp. ranger. - -	285.80
13. <u>Montezuma Castle</u> ; 9,813; Camp Verde, Ariz.; Earl Jackson, - -	520.00
custodian; Edwin Alberts, park ranger.	
14. <u>Natural Bridges</u> ; 740; Blanding, Utah; Zeke Johnson, cust. - -	2,740.00
15. <u>Navajo</u> ; 329; Kayenta, Ariz.; John Wetherill, cust.; - -	360.00
William F. V. Leicht, park ranger.	
16. <u>Organ Pipe Cactus</u> ; 5,000; Ajo, Arizona; No custodian. - -	330,670.00
17. <u>Pipe Spring</u> ; 1,042; Moccasin, Ariz.; Leonard Heaton, cu. - -	40.00
18. <u>Rainbow Bridge</u> ; 300; Tonalea, Ariz.; no custodian. - - -	160.00
19. <u>Saguaro</u> ; 20,000; Tucson, Arizona; no custodian - - - -	63,284.00
20. <u>Sunset Crater</u> ; 10,000; Flagstaff, Ariz.; P. Beaubien, cust. - -	3,040.00
21. <u>Tonto</u> ; 5,368; Roosevelt, Ariz.; R. Richert, temp. ranger. - -	1,120.00
22. <u>Tumacacori</u> ; 18,472; Box 797, Nogales, Ariz.; Louis R. - -	10.00
Caywood, cust.; T. Cronyn, park ranger.	
23. <u>Walnut Canyon</u> ; 10,772; Flagstaff, Ariz.; P. Beaubien, ranger - -	960.00
24. <u>White Sands</u> ; 91,532; Alamogordo, N. Mex.; Tom Charles, - -	142,987.00
custodian; Joe Shepperd, grader operator.	
25. <u>Wupatki</u> ; 2,080; Flagstaff, Ariz.; David Jones, in charge - -	35,865.00
26. <u>Yucca House</u> ; 400; Cortez, Colo.; A. Peterson, temp. rang. - -	9.60
Total visitors, 1937, 291,426. Total acreage administered last month, 730,834.76 acres, or 1,141.92 square miles.	

OPENING

By Superintendent Frank Pinkley,
Southwestern Monuments,
Coolidge, Arizona.

We are yet unable to report any strong upward trend of business in our district. The first glance at our visitor figures might make one think we were having a much heavier season, but detailed study does not corroborate that impression. Monuments where we keep our closest check on visitors show little change from past years. This is no disappointment to us, for we would be very glad to have the visitor curve at several of our monuments flatten out and remain where it is for some years to come instead of going on upward to unwieldy numbers and to the destruction of some of our ruins.

In the matter of visitors, we hope to begin an experiment before long at Betatakin Ruin in Navajo National Monument of excluding visitors from the ruin. We already have the approval of our own Service and the matter is before the Secretary of the Interior for approval at the present time. I am interested in and rather dreading the visitor reaction to this move but think it is very much worth while to make the experiment. When a visitor has driven that bad road and walked down that poor trail and is then told he cannot climb around over the ruins, we are likely to have a bad half-hour. The setting, however, lends itself admirably to this exploitation of the ruin and I think the experiment should be made even though it may result in failure. We will take the visitor within the cave arch and there give him a comfortable seat, furnish him with glasses, plans, photographs, etc., and talk over the ruin to his heart's content, but he must not go up among the walls. It is a magnificent setting and I believe the trip can be made very impressive.

Our outline of work for the new fiscal year was considerably delayed, but arrived about the twentieth of the month and we now know where we stand.

The new ranger position at Chiricahua was filled for the remainder of the summer by G. Gilbert Philp. This gives us our maximum force for the year and we will begin dropping men by the end of August.

Our CCC camps and side camps continued to operate at Bandelier, Chiricahua, Chaco Canyon, and Casa Grande during the month. Programs were made up and sent in for the new period. The new camp at Flagstaff, NM-5-A, did not receive its men this month. The men are now promised by August 2 and soon after that date we hope to be able to go to work at Walnut Canyon.

We enjoyed a visit from Mr. Demaray of the Washington Office during the month. We met him at Phoenix and showed him Casa Grande, Saguaro, Tumacacori, Chiricahua, Tonto, Montezuma Castle, the proposed Tuzigoot, Walnut Canyon, Sunset Crater, and Wupatki National Monuments and have hopes of adding a couple of others before he gets out of the district.

OPENING (CONT.)

We want to take this opportunity to congratulate you on having served as Director of the Service for five years and to renew our pledge of loyalty to you as long as you hold the office. May the first five years prove a good beginning for the real job ahead of you!

They have been five rather hectic years, as we look back upon them, and five hard years to live through. Things sometimes happened in an upside-down fashion; we have grown too fast in some ways and have lagged along in others; we need to assemble, coordinate, and digest the things we have absorbed in the grand rush which has been upon us. But we are still with you, your men from soda to hock, and we will back you with our money, chalk, or marbles, just as we said we would five years ago.

As we look down the months ahead, we grow uneasy at the prospect of the break of another big Public Works program with its attendant overtime work and strain upon our personnel, but we have come through all right thus far and are ready to start again when you say the word.

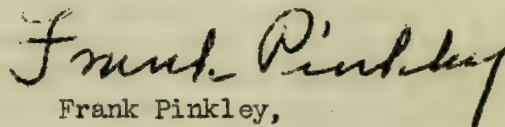
Visitors' curves are flattening out, it appears, on several of our monuments which have been worrying us with a rising curve and if this will hold for a few years, we may get caught up with our protection and be able to control some of our worst problems.

Our museums program has advanced slowly during the month, some work having been done at Bandelier and Tumacacori and a primary plan completed by our office for White Sands. This latter plan will have to be mimeographed and circulated for further study and approvals.

On the whole, the outlook through the district is good for the present and looks better for the immediate future. We don't yet see how we are going to give vacations to all the personnel this year because there is no slack period on so many of our jobs, and with two lone-post men 300 miles apart, one cannot double up and take care of the other's work while he is gone.

We have asked this month for the establishment of another position in the headquarters office and unless we can get it we will have to ask for the lifting of many of our deadlines because we cannot go on asking our office force to put in the overtime they have had to put in for the last year.

Cordially,


Frank Pinkley,
Superintendent.

CONDENSED REPORT

IN WHICH HIGHLIGHTS OF THE MONTH ARE GIVEN



Coolidge, Arizona,
August 1, 1938.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

The Condensed Report for the month of July, 1938, follows:

	July 1938	July 1937	July 1936	To last of June	Travel Year To Date
<u>TRAVEL</u>					
Arches.	186	--	--	380	1,066
Aztec Ruins	2,264	1,881	2,089	11,710	13,974
Bandelier	2,707	2,665	2,162	6,747	9,454
Canyon de Chelly.	223	237	159	720	943
Capulin Mountain.	7,500*	6,000	2,500	8,200	15,700
Casa Grande	1,763	1,613	1,142	28,415	30,178
Chaco Canyon.	775	1,026	929	3,971	4,476
Chiricahua.	1,033	1,247	1,017	6,524	7,557
El Morro.	580	383	415	1,422	2,002
Gila Cliff.	30*	--	--	45	75
Gran Quivira.	357	417	281	2,167	2,524
Hovenweep	15	--	--	125	140
Montezuma Castle.	1,490	1,507	1,482	6,304	7,794
Natural Bridges	188	146	--	234	422
Navajo.	82	--	133	194	276
Organ Pipe.	300*	--	--	5,250	5,550
Pipe Spring	198	185	406	1,429	1,627
Rainbow Bridge.	35	--	--	137	172
Saguaro	300*	--	--	19,472	19,772
Sunset Crater	1,287	1,212	1,177	3,384	4,671
Tonto	320	399	289	4,148	4,468
Tumacacori.	1,005	1,157	818	12,140	13,145
Walnut Canyon	2,378	1,954	2,384	6,408	8,786
White Sands	16,830	12,421	12,406	56,588	73,418
Wupatki	424	341	321	1,125	1,549
Yucca House	12	--	--	140	152
TOTALS	42,282	34,791	30,110	187,879	230,161
Same date year ago					194,847
Increase					35,314
*Estimated.					

CONDENSED REPORT (CONT.)

Although travel records for July, 1938, show a phenomenal increase over those for June, as well as for those of a year ago, there is sufficient cause to doubt the accuracy of these reports to preclude any great excitement over the extraordinary jump. At both White Sands and Capulin Mountain, the monuments showing the greatest travel, only a skeleton personnel exists, making impossible an accurate count.

At the monuments where exact travel counts are made, both increases and decreases are shown. El Morro reports the heaviest travel on record, Aztec Ruins had a big increase over a year ago, and Casa Grande showed a gain. In contrast, Chaco Canyon, Tumacacori, and Tonto all report less patronage than in July, 1937. A detailed analysis of the month's travel records is given on page 64a of this report.

000 GENERAL

010 Matters of Unusual Interest or Importance

Arches: Four new arches are reported this month. (See p. 17)

Aztec Ruins: Much needed ruins stabilization work began. (See p. 30)

Bandelier: A skeleton was found in the Otowi Section. (See p. 80)

Headquarters: Assistant Director Demaray devoted considerable time to a visit taking in a number of the monuments. The Southwestern Monuments Association was given official Secretarial approval on July 22. (See p. 61)

020 Weather

In general, normal July weather conditions have prevailed. In the southern monuments, it has been hot and dry; in the northern group, cool, cloudy, and showery weather has been general. The only monument reporting stormy weather which might adversely affect travel is White Sands which, regardless of weather, indicates the heaviest travel in the history of the monument. Hope of the breaking of the long drouth in the vicinity of the "Dust Bowl" area is expressed.

100 ADMINISTRATIVE

123 Visits by National Park Service Personnel

Arches: V. H. Cahalane and W. B. MacDougall.

Aztec Ruins: Engineer Read, J. Faris, T. C. Vint, C. Richey, H. H. Cornell, H. Hastings, Hugh Miller, Dale King, Gordon Vivian, and L. T. McKinney.

Bandelier: J. Diehl, J. S. Cross, T. Vint, C. Richey, L. McClatchey, A. E. Underhill, and H. A. Montgomery.

Casa Grande: H. B. Chase, A. E. Demaray, and Bill Stevenson.

Chaco Canyon: T. C. Miller, H. M. Miller, J. H. Tovrea, D. S. King, A. L. Rowell, Tom Vint, and C. A. Richey.

Chiricahua: A. E. Demaray, J. H. Tovrea, J. H. Haile, and George Sholly.

Headquarters: H. B. Chase, A. E. Demaray, R. R. Budlong, George Sholly, and W. B. MacDougall.

Hovenweep: Betty Yelm.

CONDENSED REPORT (CONT.)

Montezuma Castle: A. T. Bicknell, N. N. Dodge, and Luis Gastellum.

Navajo: Bill and Sally Lippincott.

Natural Bridges: Bill and Sally Lippincott.

Tumacacori: A. E. Demaray, Frank Pinkley, Hugh Miller, and J. H. Tovrea.

Walnut Canyon: Mary Louise Rogers, J. H. Tovrea, Tom Vint, Hugh Miller, H. H. Cornell, Al Keuhl, and Cecil Doty.

White Sands: E. F. Preece, J. Diehl, H. A. Montgomery, A. E. Underhill.

Wupatki and Sunset Crater: Hugh Miller, Tom Vint, Al Keuhl, H. H. Cornell, C. Doty, C. N. Gould, J. Tovrea, N. Dodge, and C. Wilder.

125 Other Government Officials

Chaco Canyon: G. Antonick, J. L. Gardner, W. R. McKinney, J. B. Goodwin, J. J. Turner, and D. G. Shockley of the Soil Conservation Service; J. R. Hopkins, M. A. Pfeiffer, A. W. Simington, R. Matson, and N. Conway of the U. S. Indian Service; and J. H. Shivers of the Bureau of Public Roads.

El Morro: Jack White and Clay Lockett of the Indian Service.

Headquarters: Fred Winn and Sam Sowell of the Forest Service.

Montezuma Castle: T. J. Parr.

Tumacacori: Fred Winn.

Walnut Canyon: Ken Disher.

140 Labor Situation

Chiricahua: Receipt of a government contract by one of the major mining companies has kept many men employed. (See p. 46)

150 New Equipment

Bandelier: A one-ton chain hoist, one air compressor, and two washers and ironers were added to the lists. (See p. 53)

Montezuma Castle: Equipment for the electric pump and the new lighting system was received during the month. (See p. 44).

170 Plans, Maps, and Surveys

Bandelier: Painting of the large relief model of the monument has been completed and the map installed in the lobby. (See p. 53)

180 Circulars, Placards, and Publicity

Wupatki: A large painting of the ruins is on display in the Flagstaff Chamber of Commerce. (See p. 15)

200 MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTION

210 Maintenance, Unusual

Aztec Ruins: Ten N.Y.A. man days were expended on weed eradication. Linoleum was laid in the museum and custodian's residence. (See p. 28) Work was begun on ruins stabilization waterproofing roofs and establishing drainage. (See p. 30)

Capulin Mountain: Heavy rains necessitated nine days of road maintenance. (see p. 52)

Chaco Canyon: New roofing and calcimine were placed on the custodian's residence. (See p. 19) Following floods, water gaps in the boundary fence were repaired. Ruins stabilization took 153 man days. (See p. 21).

CONDENSED REPORT (CONT.)

Canyon de Chelly: Walls of the custodian's house were painted and the floors repaired. (See p. 48)

Chiricahua: Five hundred man days were required to repair roads and clean culverts following a cloudburst. (See p. 47).

Headquarters: Transferring equipment to the new Mt. Elden Camp and servicing and repairing motor equipment have kept the maintenance men busy all month. (See p. 58)

220 Improvements

Bandelier: A wall Multiplex has been installed. (See p. 54)

Chiricahua: On the Bonita Highway, 500 square yards of banks have been sloped. (See p. 47)

Pipe Spring: The pit toilets were completed and five men and a truck worked on ditch elimination. (See p. 9)

Tumacacori: A furnace was installed in the administration building and tests made. (See p. 38)

White Sands: Water has been made available for irrigating the plantings and for use in the comfort stations through the installation of a large tank. (See p. 32) During a recent storm, the new drainage ditches functioned well.

230 New Construction

Chiricahua: Museum cases for installation in the administration building museum were under construction during the month. (See P. 47) Work started June 30 on the new warehouse and walls were completed during July to a height of five feet. The new bridge was completed. (See p. 48)

Casa Grande: The shop floor was poured, completing the building except for the fittings and doors. The roof of the warehouse was finished and the walls made ready for plaster (See p. 25)

Bandelier: The lobby and sales room of the hotel were brought to practical completion and the operator's residence was almost finished. The employees' dormitory was completed 100 per cent. Cabin "A" was brought to parapet wall height and the ceilings laid and Cabin "B" was built up to three foot wall height. (See p. 56). Cable for the power lines was received and junction boxes were installed. The furniture and fixture projects were advanced. (See p. 57).

240 Improvement to Approaches

Aztec Ruins: The seal coat was laid on the approach road. Highway U. S. 550 from Farmington to Aztec was completed. (See p. 28)

Chiricahua: The Forest Service improved the Pinery Canyon road.

Hovenweep: Work was done on the Elmo Canyon road to Cortez.

Navajo: The job of rendering passable the approach road to Beta-ta'kii was started by the CCC. (See p. 11)

260 Landscape Work

Wupatki and Sunset Crater: A thorough inspection was made by the Division of Plans and Designs preparatory to development planning. (See pages 14-15)

300 ACTIVITIES OF OTHER AGENCIES IN THE MONUMENTS

320 Cooperating Governmental Agencies

CONDENSED REPORT (CONT.)

Chaco Canyon: The usual fine cooperation with the Soil Conservation Service and the Indian Service has been enjoyed.

330 Non-Governmental Agencies

Wupatki and Sunset Crater: Valuable informational assistance has been received from the Museum of Northern Arizona. (See pages 13-15)

350 Donations and Accessions

El Morro: A Kodaslide projector and screen, and a microscope were added to the monument's possessions. (See p. 40)

Headquarters: The Branch of Education received 26 new bookcase sections for the library, a 5 x 7 view camera and accessories, 81 publications, 72 negatives and 144 prints, two two-compartment bird traps, and three steel filing cases. (See pages 61-63)

Sunset Crater: A collection of volcanic bombs and other geologic specimens was made for future museum display. (See p. 15)

Tonto: One herbarium case and one study skin case were received during July. (See p. 27)

400 FLORA, FAUNA, AND NATURAL PHENOMENA

410 Ranger, Naturalist, and Guide Service

Casa Grande: Both ruins and museum time was longer in July.

Montezuma Castle: A model of a cliff house ladder was made for display. Twenty-six plants were collected and sent away for identification. (See p. 45).

Sunset Crater: Plans were formulated to bring about some much needed educational work. (See p. 13).

Tumacacori: The custodian spoke at a meeting of the Nogales Rotary Club. (See p. 37)

Walnut Canyon: An outline of nature trail operation will be found on page 81.

420 Museum Service

Aztec Ruins: Heavy use by the public has made the presence of an N.Y.A. museum attendant very valuable. Several museum displays were rearranged. (See P. 29)

El Morro: Information talks have been greatly aided by the new projector and screen. (See P. 40)

Gran Quivira: Need of a museum becomes greater as other museums are established in the vicinity. (See p. 38)

Headquarters: Considerable museum planning has been carried on during July. (See p. 63). An article, "Anthropology and the Museum" by Katharine Bartlett appears on page 77.

Montezuma Castle: The museum was rearranged. (See p. 44).

Tumacacori: Installation of exhibits and lights progressed well.

Wupatki: A tree-ring dating exhibit is being prepared. (See p. 15)

460 Birds

Montezuma Castle: Bird records are on page 73.

Tumacacori: Observations for the month are recorded on page 75.

470 Animals

Pipe Spring: Many fish were killed when the pond was cleaned.

Bandelier: Frijoles Creek was stocked with 22,000 trout. (P. 54)

CONDENSED REPORT (CONT.)

490 Miscellaneous

Capulin Mountain: Rains have brought out vegetation. (See p. 52)

Casa Grande: Night-blooming Cereus plants on the monument flowered on the evening of July 5. (See p. 66)

500 USE OF MONUMENT FACILITIES BY THE PUBLIC

510 Increase or Decrease in Travel

All Monuments: A discussion covering an analysis of the travel records will be found on pages 3-4 and in the Opening.

530 Newsworthy Visitors

Aztec Ruins: Senator T. L. Smith, a member of the Appropriations Committee, visited the monument. (See p. 20).

Bandelier: Dr. E. T. Renaud of the University of Denver. (See p. 54)

600 PROTECTION

630 Accidents

Natural Bridges: The custodian's wife was injured in an accident involving the custodian's personal automobile. (See p. 50)

650 Signs

Tonto: Four badly needed directional signs were received. (P. 27)

Aztec Ruins: The ranger made and installed a new sign at the gate giving the visitor hours. (See p. 29)

Yucca House: Four warning signs were installed. (See p. 33).

700 ACTIVITIES IN ARCHEOLOGY, HISTORY, AND PREHISTORY

Bandelier: A skeleton was found. (See p. 80)

Casa Grande: The collections catalogue was put in shape. (P. 62)

El Morro: A program of photographing all of the inscriptions has been started. (See p. 41)

Hovenweep: Prehistoric beams have been collected for dating.

Montezuma Castle: It is possible that a new textile material has been discovered. (See p. 45)

900 MISCELLANEOUS

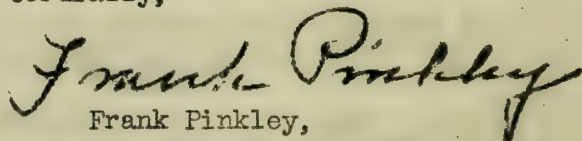
Rainbow Bridge: Custodian John Wetherill is acting as guide for 23 persons making up the 1938 Monument Valley-Rainbow Bridge Expedition under Dr. Charles Winning of New York. (See p. 11)

White Sands: The matter of obtaining an accurate visitor count is still a serious problem. (See p. 31)

Pipe Spring: Cottonwood trees are dying. (See p. 10)

Gran Quivira: Rain did considerable damage to the walls during the month. (See p. 38)

Cordially,


Frank Pinkley,
Superintendent.

FIELD REPORTS

FROM THE MEN ON THE JOB

PIPE SPRING

By Leonard Heaton, acting custodian,
Moccasin, Arizona.

Visitors this month, 119, total since October 1, 1,548.

I seem to have been out of step with the world this past month; things in general have not gone the way they should or the way I thought they ought. Some of the blame, no doubt, rests upon me, as I have not felt as well as I should. I was without my glasses for three weeks. At present I can't think of very much to report other than figures and my troubles. I shall give the figures and try to keep my troubles to myself.

Travel for the month shows a slight decrease. Total for the month, 119; for June, 138; unguided, 79; June, 250. There has been a larger percentage of easterners here this month than last. As an excuse for the decrease I can offer the condition of the roads which are very rough and dusty due to the lack of rain and the very hot weather we are having. Most of the visitors express themselves as wanting to get out of here and into the mountains. I don't blame them a bit.

My weather records show the following: clear days, 13; partly cloudy, 9; and cloudy and stormy, 3. The last part of June we had some very good rains, but throughout July the weather has been hot and dry. I am beginning to worry about the life of the trees, as it seems impossible to get the water where I want it. As yet, nothing has suffered so very much.

I have done away with two house cats which seem to be all the grown ones. There are two or three small ones that the boys have in camp which will more than likely get into my traps before long.

The only project that the CCC has worked on this month is the ditch elimination starting July 5. With five men and the truck they have done a lot of work. Another man was added July 14, and I would say that two more weeks work will see this job completed as far as the project is outlined at present.

The pit toilets are all complete except the second coat of paint and the lattice screens in front. These I hope to have completed by the last of the month.

On June 28, some 40 boys were sent home as their time was up in the camp. This left about 110 in camp. The camp received 87 new boys July 16, bringing the camp strength up to 200. The new boys seem to be fine

PIPE SPRING (CONT.)

fellows and satisfied with the place.

On July 14 I had the east pond cleaned of weeds and trash as had been done before, having no idea what it would do to the fish. In about four days after the cleaning, not a live fish could be seen in the east pond. The only explanation that I can offer is that the decayed leaves and weeds caused a poison which, when we stirred it up, killed the fish. A number of the fish were split down the belly and all were bloated very much.

The next time I clean the ponds when there are fish in them, it will be a little at a time, or we will drain them and move the fish to another place. Anyway, I won't kill as many as I did this last time.

On the afternoon of July 20, I had my mother down to give me the names and other data I need to complete my museum records and comply with the memorandum sent out a while back about the receipt of gifts or loans. Mrs. Heaton helped gather up a lot of the museum articles back in 1927-28 and no record was made of them at that time. Now, with a lot of work on my part, I hope to get this part of the monument where it ought to be in the next few weeks.

I have another sad and serious thing to report. That is the dying of some of the big cottonwood trees between the ponds. There are two that lean out over the east pond that will be dead by fall, and there are several others that don't look so good to me. The leaves are not as numerous as they should be and a lot of dead limbs are appearing. I am wondering if it is old age creeping up on them or if there is some disease getting hold of them. Anyway, I am worried about them and I am not a tree doctor. So I call for some help.

*****SWM*****

Calls are going out to Dave Madison about the fish and Ward Yeager about the trees so we are sure of expert advice about Leonard's troubles before long. We will be mighty sorry to lose those big cottonwoods between the two ponds for their shade has a great part in making the place so lovely in the summer.--F. P.

*****SWM*****

NAVAJO

By William F. V. Leicht, park
ranger, Tonalea, Arizona.

Visitors this month, 82; total since October 1, 276.

The season's upward trend of travel has been reflected at Navajo during the past month. From near and far 82 visitors came to the monument. Of this total, 73 were at Betata'kin, two at Keet Seel, and seven at Inscription. A goodly percentage of these had visited our adjacent monuments, Canyon de Chelly, Arches, Natural Bridges, Rainbow Bridge, and Wupatki. One party of four came by pack train from Rainbow Bridge. Fourteen visitors camped overnight at Betata'kin. Several parties en route to Betata'kin turned around, after trying to negotiate the hill above Shonto.

A distinguished visitor during the month was Dr. Charles Winning, of New York City, field director of the Rainbow Bridge-Monument Valley Expedition, now at headquarters on Marsh Pass. The expedition, which comprises a personnel of 23, will be in the area for the duration of the summer. Custodian John Wetherill is acting as guide. One party is camped at Cobra Head Canyon four miles below Betata'kin; another is on a boat trip down the San Juan.

Park Service guests were Bill and Sally Lippincott of Canyon de Chelly. They were the first of our Southwestern Monuments family to visit me. Natt Dodge of Casa Grande got within almost shouting distance of Navajo, but lack of time prevented his coming all the way. At Flagstaff, on the first of the month, I had a pleasant visit with Custodian Al Bicknell of Casa Grande. I should like to see you all, but know that is out of the question; however, I am going to throw a figurative lariat, ensnaring Hugh Miller, as he virtually promised me a visit months ago.

Late one afternoon a party of five welcome visitors from Salt Lake City arrived at Betata'kin. Among them was Mrs. Lucille Ross Bowen, of glorious voice and charming personality, a soloist of the Tabernacle Choir. In the still of the sunset hour and on God's great stage which is Betata'kin, Mrs. Bowen sang "By the Bend of the River". The theatrical setting of cliff dwellings behind the high arch made that event most impressive. To those delightful guests from Salt Lake City may I say, "Come again!"

I am glad to chronicle the news that cars will soon be able to drive to the head of Betata'kin trail. Work began July 18 at the two worst places on the last-mile stretch of the Betata'kin road. Mr. Kilgore, of the recently-established CCC Camp at Shonto, is in charge. Just enough work is being done at present to make the road passable. In time, the hill above Shonto will be given attention and, I understand, a particularly bad grade on the back road to Kayenta.

During the month I made inspection trips to Keet Seel and Inscription House, on each trip having guests to Navajo accompanying me. It is now a round-trip journey of a hundred miles from Betata'kin to Inscription House, as the two short-cuts from Shonto have become impassable.

On July 18 I had a trip through Monument Valley to the Goosenecks of the San Juan, being a guest of the Rainbow Bridge-Monument Valley

NAVAJO (CONT.)

Expedition. At Nevills' Lodge in Mexican Hat, Mrs. Nevills asked if we had recent news of her son Norman, who is conducting an expedition down the Colorado River. Unfortunately, we had not, as our isolation is almost as complete as hers. The anxiety of that dear little mother was very apparent, but she did have great confidence in her son's skill as a riverman. That evening a remarkable coincidence occurred for me. A friend whom I had known in South America arrived at the Lodge.

A favorable statement can be made about the weather at Navajo. The month started out with the usual wind and sandstorms which lasted four days. Then followed two weeks of almost perfect weather. The remainder of the month has been hot, with afternoon showers, though still quite agreeable. The rainy season is near at hand.

Mr. and Mrs. Evermore (quoth the ranger), the two officious ravens who live in their penthouse up in the great cave, have become so sociable that they now perch on the ridge-pole of the tent, first doing a little preliminary snooping about my water-cooler in the stream. The clownish rascals are a nuisance, but they are company on lonely days.

Someone should invent a hair retarder for us fellows who cannot get to a barber shop oftener than once a month. By the end of the month I look as if I should be wearing a coonskin cap, leather jerkin, and fringed breeches, and toting an old flintlock over my shoulder.

Adios, until next month.

*****SWM*****

Bill has the following to say in a letter during the month: "Thanks to some one at the office for making a correction in my June report. The word 'Auto' was substituted for 'Buick.' I knew it was not good journalism to use a trade name, and I thought of it--too late. Moreover, I would not willingly admit that anything could ever happen to the mechanism of a Buick, being the owner of that make of car."

Which just shows how careful we try to be, but in the hectic rush of getting the report into the mail, we so often fail.

Bill also says: "Mrs. Rorick sold out her interest in the Shonto Trading Post and sails today for Europe. Johnnie O'Farrell sold out at Tonalea over a month ago and is now located at The Gap."--F. P.

*****SWM*****

SUNSET CRATER

By David J. Jones, park ranger,
Tuba Star Route, Flagstaff, Ariz.

Visitors this month, 1,287; total since October 1, 4,671.

A total of 1,287 visitors registered at this monument during the past month as compared to 1,212 in 1937, 1,177 in 1936, and 909 in 1935.

GENERAL

Another month passes, 1,287 visitors drive four miles out of their way to see Sunset Crater, and most of them go away disappointed. To sit and think of this situation is one thing; to actually experience it is another. During the past month, I have spent a total of two days at Sunset talking to visitors part of the time to find out what questions predominate in their minds. The thing that impresses me the most is the appreciation that people show when you take a bit of time to explain the interesting features of the Crater. Wouldn't it be a big load off your mind, Boss, to feel that by next summer we could actually take care of all the visitors at Sunset? I am almost ashamed to appear in uniform around Sunset simply because visitors immediately ask why the Park Service doesn't do anything about it.

The lack of an educational program for Sunset, I realize, is chiefly my fault. However, as soon as possible I intend to take care of this matter. Most desirable is the presence of a ranger, at least temporarily, to answer the dozen and one questions we could never hope to do with signs. Second in importance is an exhibit room about 16 feet by 20 feet in which we can present to the visitor the necessary fundamentals of volcanology. This would also serve the visitor who, through lack of time or ability, cannot take the trails to the actual exhibits in the field--and there will always be a good many of them. Third in importance is a system of trails to the major points of interest with a brief explanation of the feature at each station. As I have mentioned above, I intend to present plans for the latter two projects by the last of September.

Highlight of the month was an inspection by members of the Branch of Plans and Design, accompanied by Hugh Miller. Although it was necessary to work until dark, we really got down to "brass tacks". Both Paul and I are well satisfied with the plans for development as far as they have gone. Can you imagine the rare occasion when practically everyone agrees upon several different problems?

On July 16, Dr. Colton and Major Brady, of the Museum of Northern Arizona, and I spent the better part of a day at the Crater. Arriving in a downpour of rain, we explored a rift that extends for about two miles northeast of the crater. Later we went over the area in general. I greatly appreciate the time which Dr. Colton and Major Brady spent, as I

SUNSET CRATER (CONT.)

now feel that Sunset Crater presents a more unified picture to me.

Incidental to our trip, we took care of a fire that had been started by lightning striking a dead tree. Since it was only one tree, we trenched the area and then left it until morning when three CCC boys from NM-5-A came out and stayed until there was no further danger.

During the month 15 flowering plants were collected at Sunset Crater. I am afraid that we are going to miss some of those that are coming out now through lack of time to collect them.

*****SWM*****

David is right, of course, and it would be a big load off our mind if we could feel that the Sunset visitors next year would be properly greeted and have their questions answered. There is one other problem, however, which takes precedence over this one of giving information at Sunset, and that is, which ruin shall we leave wide open to vandalism in order to keep the public from carrying off Sunset Crater? Protection, in other words, must have precedence over education; if our policy were otherwise, David would be living at Sunset where we have three times the number of visitors that we get at Wupatki. Our basic work is protection! After that, not far, I will admit, but certainly not equal to it in importance, comes the informational phase of our job. --F.P.

*****SWM*****

WUPATKI

By David J. Jones, park ranger,
Tuba Star Route, Flagstaff, Ariz.

Visitors this month, 424; total since October 1, 1,549.

A total of 424 visitors registered at both the Citadel and Wupatki this month. This has been one of our busiest months from this point of view.

WEATHER

We have been somewhat disappointed with the weather man. On July 27, 28, and 29 we received a total of one inch of rainfall. It was not a cloudburst, but a slow drizzle which did considerable good. Since then, however, there has been none at all. We hope that the rainy season will set in during the month of August as it is plenty hot and dry here.

GENERAL

Probably the most important thing that happened this month was a visit from the "landscapers" and Hugh Miller. Although they did not

WUPATKI (CONT.)

stay long enough to suit us, we enjoyed a chance to discuss our problems with them. Here, as well as at Sunset Crater, I am well pleased with the way the monument is being developed, or rather the plans for development. I am willing to bet that within a year after we get a good road in here the travel will jump to about ten thousand a year. I say this because of our proximity to Grand Canyon. Visitors there ask where it is possible to see a large ruin within a reasonable distance from the highway. Wupatki is the best place, but the rangers usually add for the benefit of the eastern visitor that the roads are pretty awful. Hence we get only the more adventuresome souls. This increase in travel should be taken into consideration when the development is planned.

This month it was impossible to check the flow from the spring in time to put it in this report. However, we are not having trouble with a shortage of water. In accord with your request, samples of water from Wupatki and Heiser springs were sent to Sanitary Engineer Hommon for analysis.

Of interest was a Navajo curing sing on the monument. Hal Smith, one of the neighboring Navajos, had a bad eye and to cure it held a five day sing. Although it was during the wrong time of the year for me to attend during the day, we did manage to get some pictures of it. Mr. E. T. Nichols, a photographer from Tucson, has been visiting us and took quite a number of shots, both still and movie, in color. The Peshlakais have been a good source for pictures of the "Family Life of the Navajos", a slide lecture Mr. Nichols is planning.

Mr. Robert Atwood, who has established an art school in Flagstaff, made a very nice oil painting of the south group of Wupatki ruin. At present the painting is exhibited at the Chamber of Commerce in Flagstaff.

During the month a number of museum specimens for the Sunset Crater collection have been gathered, including bombs and other volcanic features. Major Brady of the Museum of Northern Arizona donated a specimen of pseudo-morphic halite crystals found in the Moencopi formation. He also returned the Cherotherium tracks which were discovered by Brewer last year.

Our new tree ring exhibit is almost ready to be assembled. The major point in it is that the specimens used to illustrate the "bridge method" actually have rings which are the same size where they overlap. If anyone wants a series of these specimens, I can furnish them.

USE OF MONUMENT FACILITIES BY THE PUBLIC

1938:--424; 1937:--341; 1936:--321; 1935:--268.

Visitors registering at the Citadel, 282; at Wupatki, 242. Since 100 of the visitors registered at both places, the total travel to the

WUPATKI (CONT.)

monument this month is 424.

NEWSWORTHY VISITORS

National Park Service visitors include the following from the Branch of Plans and Design: Tom Vint, A. C. Kuehl, A. J. Doty, and Harvey Cornell. In addition, we had visits from Hugh Miller, C. N. Gould, regional geologist, J. H. Tovrea, Paul Beaubien, Natt N. Dodge, and C. Wilder of the Wayside Museum at Grand Canyon.

We are sorry to have missed Natt when he was here on June 23, but we took a day off to go on a wild goose chase for Hopi petroglyphs.

Mr. and Mrs. H. T. Getty stayed overnight with us and told us what was going on in the outside world. Harry was very much impressed with the museum at Mesa Verde. Paul Franke and Don Watson would turn red at the ears to hear his praise of their work.

The Tovreas came out on a pleasure jaunt while they were stationed in Flagstaff. Not only did we enjoy their company, but Tov did a wonderful water color of the ruin; one of the best that I have seen.

*****SWM*****

Will those of you who have the problem of getting over the story of the tree ring growth please note Davy's offer of the best possible material and take advantage of it if you wish to do so.

The ring growth story is one of the hardest simple things to get across that we have in Southwestern archaeology.--F. P.

*****SWM*****

ARCHES

By Harry Reed, park ranger,
Moab, Utah.

Visitors for month, 186; total since October 1, 1,066.

Although it has been impossible to meet all visitors this month, I have contacted 161 and estimate that an additional 25 visited the monument during my absence. Cars were registered from eight western and seven eastern states, as well as one car from Hawaii.

WEATHER AND ROADS

We have had fine weather during the last week of June and up to July 20. The last two days have been considerably warmer and we have

ARCHES (CONT.)

missed the cool breezes which have blown every day for the past four weeks. Only one light shower has fallen during the entire month. This was on June 12.

The temporary road has been in pretty bad condition but I have been able to keep it open to traffic. Two sand dunes formed across the road which made it necessary to change the route of the road at these points. The commissioners of Grand County and the Dalton Wells CCC Camp plan to put a crew on the road in a few days. A grader and dump trucks will be used and shale will be placed in the worst places.

NATIONAL PARK SERVICE OFFICIALS

Victor H. Cabalana, acting chief of the Wildlife Division, Washington, D. C., and Dr. W. B. McDougal, regional wildlife technician, Santa Fe, New Mexico, were visitors to the monument late in June. They also made trips to Fisher Canyon and the Big Flats between the Colorado and Green Rivers. On June 28 and 29, I accompanied them on a 45 mile boat trip down the Colorado River to the mouth of Lockhart Canyon.

MISCELLANEOUS

MORE ARCHES: I have four more arches to report. Two of these are within the present boundary of the monument and two are in Yellow Cat which is not within the proposed extension but only a short distance away and can be seen from the monument. They are as follows:

Yellow Cat: No. 1. Height 100 feet; length, 150 feet.
No. 2. Height 40 feet; length, 60 feet.

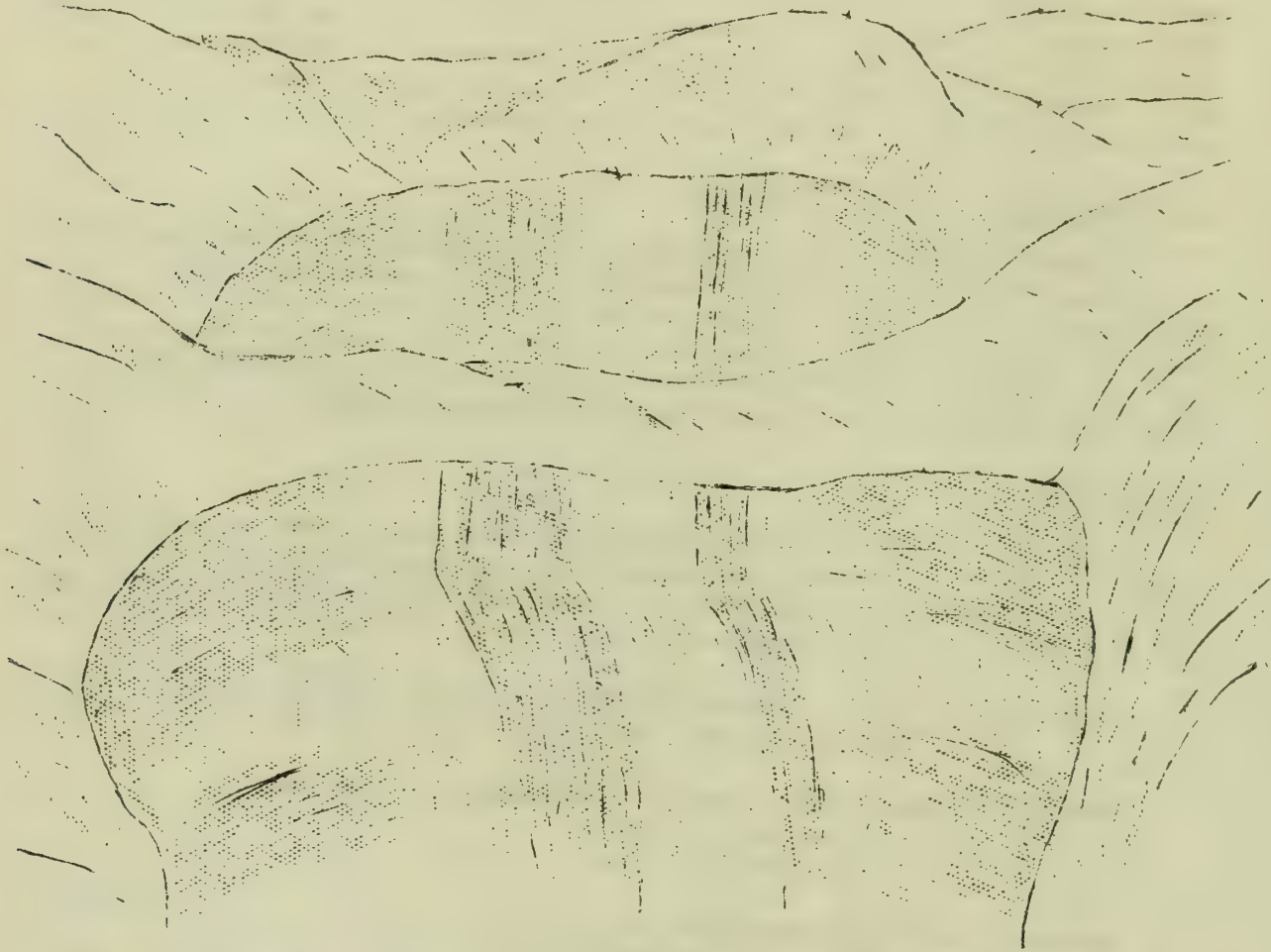
Devil's Garden: Whale Arch (closely resembling a whale)
Height, 18 feet.
Length, 25 feet.

Windows Section (sketch next page)
Height, 20 feet.
Length, 50 feet. (All dimensions are estimated)

Imagine my surprise at finding an unusually beautiful arch behind a wall which I have always taken for granted was of little importance. From now on I am taking nothing for granted. It seems there is no way of determining the number of arches in this monument. This brings the total to 48 large arches (35 feet or more) and 21 small arches (less than 35 feet) within the proposed extension and in addition there are three large ones just outside. I have been given descriptions of others which I have never seen which will boost these figures considerably. I am making up a list of the arches which I have seen, giving their official or estimated dimensions. This list and a photograph of the new arch in the Windows Section will be mailed in as soon as completed.

ARCHES (CONT.)

A cave without a roof is about the best way to describe this newly found arch in the Windows Section of Arches National Monument. Size of opening under arch approximately 20 x 50 feet. Streaks on back wall are water marks. A small waterfall drops through the arch after a rain-storm.



If Harry keeps on we will have to begin numbering the arches in Arches National Monument. It tickles me to have him cheerfully report a new arch 100 feet high and 150 feet long as a part of the month's work, along with three others which are "little" ones.

Think of Tom Boles finding an arch among his formations 100 feet high and 150 feet long and just casually reporting it as one item in the monthly report! He would promptly telegraph Washington, day rate: "Have found only cycloid arch in world, approximately 203 feet high and 361 feet long; verily, we do our part."--F. P.

*****SWM*****

CHACO CANYON

By Lewis T. McKinney, custodian,
Chaco Canyon, New Mexico.

Visitors this month, 710; total since October 1, 4,681.

After so long a time we have had a little rain in the Chaco, and things are looking up a bit. No doubt visitors have been scared away because of rains over other parts of the state. When it rains on the Chaco approach roads, it is no place for a paved-road driver. Sometimes we old country boys get delayed, and only by the use of a shovel, brush, or whatever we can get our hands on are we able to shove on ahead. It is only 24 miles from Pueblo Bonito to Highway 55 when the road is dry, but several miles farther when the road is wet. The old Chaco Wash has been up four times this month since the 15th; on that date it was up to the 5.10 mark on the gauge.

I put new roofing on the custodian's residence this month, and I believe I have stopped two of the leaks that Carroll and I have been working on for the last five years.

The calcimine has been bought and we will start work on the inside of the custodian's residence on Monday.

I have a notice that the linoleum is at the freight depot in Gallup and as soon as the calcimining is over and the mess is cleaned up, I will start laying the linoleum and make a new mess.

The Ford has been in the shop for the past two weeks being completely overhauled. Maybe within a week or two I'll have it out again.

VISITORS

The visitors for the past month were far below the same month last year. There were only 710, coming from the following 26 states: Ariz., Ark., Cal., Colo., Conn., Georgia, Idaho, Illinois, Indiana, Kansas, Mass., Maryland, Mich., Minnesota, Missouri, New Hampshire, New Jersey, New Mexico, New York, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Washington, Wisconsin, also Washington, D. C., and Territory of Hawaii.

SPECIAL VISITORS

George Antonick and family, J. L. Gardner, W. R. McKinney, James B. Goodwin, J. J. Turner, and Dell G. Shokley, all of the Soil Conservation Service, of Gallup, New Mexico, were visitors. Mr. and Mrs. J. R. Hopkins, Crownpoint, New Mexico; M. A. Pfeiffer, Washington, D. C.; A. W. Simington, Albuquerque, New Mexico; Robert Matsen, Crownpoint, New Mexico; Norman Conway, Window Rock, Arizona, of the U. S. Indian Service; and Mr. and Mrs. J. H. Shivers, U. S. Bureau of Public Roads, Albuquerque,

CHACO CANYON (CONT.)

New Mexico, were in the Chaco during July.

PARK SERVICE VISITORS

T. C. Miller and family, Aztec, New Mexico; Hugh M. Miller, J. H. Tovrea, and Dale S. King, from headquarters; Mr. and Mrs. Alfred Lee Rowell and daughter, Mesa Verde, Colorado; Thomas C. Vint, Washington, D. C.; and Charles A. Richey, Santa Fe, New Mexico, were Park Service visitors.

WEATHER

The maximum temperature for this month was 97°; minimum 43°; and precipitation .22 inch. Clear days, 17; partly cloudy, 9; cloudy, 4.

THREATENING ROCK

Threatening Rock now measures three inches on the west end, three and 10/32 inches in the center, and three and 6/32 inches on the east end.

UNIVERSITY OF NEW MEXICO

The University of New Mexico representatives will probably be here on August 1 to begin their summer school here in Chaco, and will remain until August 27.

WATER SYSTEM

Our water supply in the Chaco is still a problem. Our haywire water pumping equipment is becoming more and more haywire each day.

BOUNDARY FENCE

There are three water gaps out, caused from the floods, which must be repaired as soon as I can get around to them. This is a job that must be done after each flood.

SOIL CONSERVATION SERVICE

The Soil Conservation Service is talking very favorably of beginning some work in the Canyon soon.

*****SWM*****

In order to bring the figures of the Threatening Rock up to date, we have compiled them again and present them here in variations of thirty-seconds of an inch. The three guages were originally set at the east, center, and west ends of the Rock in August with a space of

CHACO CANYON (CONT.)

two inches. Two inches should, therefore, be taken from each of the following figures to get the net movement.--F. P.

	East	Center	West
December-----	2-20/32	2-22/32	2-18/32
January-----	2-24/32	2-28/32	2-24/32
February-----	3- 2/32	3- 2/32	2-30/32
March-----	3- 6/32	3-10/32	3- 2/32
May-----	3- 2/32	3-12/32	3-10/32
June-----	3-00	3-11/32	3- 7/32
July-----	3-00	3-10/32	3- 6/32

*****SWM*****

MOBILE UNIT

By Gordon Vivian, foreman,
Chaco Canyon, New Mexico.

Inasmuch as we lost six working days at the beginning of this month and have not been able to get the crew back to full strength since then, we have expended only 153 man days since our last narrative report. Distribution of these 153 man days is as follows:

JOB	MAN DAYS
Wall support, Bonito	104
Repair to Capping	15
Clean drainage ditches	10
Waterproof rooms, Aztec	24

All camp and job overhead, establishing new tool and material storage, hauling firewood, and maintenance on water pump and rolling stock, has been pro-rated among the above jobs.

Under wall support, the work has been made up of these **individual** items:

ROOM	MAN DAYS	AMOUNT
117 (west)	70	31 cu. yds., wall masonry.
117 (south)	6	2 sq. yds. masonry, and replace lintels.
116 (west)	8	4 sq. yds. masonry veneer.
115 (west)	3	4 sq. yds. re-spalling.
114 (west)	15	10 sq. yds. masonry veneer.
96 (east)	2	3 sq. yds. re-spalling.

TOTAL: 31 cubic yards masonry; 16 square yards surface veneer;
seven square yards re-spalled.

On room 117, an exterior room on the west central side of the ruin,

MOBILE UNIT (CONT.)

practically all of the veneer had fallen away from the core of the west wall. In repairing this, the veneer was rebuilt on both sides of the core. At the south end of the same room, the veneer on the doorway surfaces had fallen and the lintels cracked. Doorway surfaces were repaired and new lintels set in place.

Rooms 114 - 115 are quite similar to 117 above, being outside rooms where the exterior veneer has fallen away from the core or where veneer is badly in need of re-spalling to prevent its collapse. In 114 where the veneer had fallen, the rubble core was exposed in places to a height of seven feet. For every yard of surface repair such as this, an equal area of core and veneer on the reverse side of the wall are saved.

The three square yards of re-spalling in room 96 are preliminary to support work on the second story by extension of wall fragments and repair of beam holes.

Under repairs to capping are the following individual jobs:

<u>ROOM</u>	<u>MAN</u> <u>DAYS</u>	<u>YARDS</u> <u>LAIID</u>
342	4	4
343	5	5
344	2	4
131	1	2
132	1	2
135	2	3
Total	15	20

The above six rooms are some which had been previously capped and reported but on which the capping was found unsatisfactory from the point of its appearance. On these, the top layers of the capping have been removed and replaced so that they are consistent in appearance with the rest of the stabilized capping on the site.

In connection with cleaning the existing drainage ditches, Mr. Read has staked out the area northwest of the ruin where the run off from the cliffs collected against rooms 200 to 204. Six yards of material have been moved in cutting and filling this area.

With the money sent to Artec, 25 man days have been expended getting materials to the site, cleaning up around the ruins, and cleaning off rooms 1 and 6 preparatory to working on them.

*****SWM*****

We were very pleased at the good reports on the excellent quality of the work of the Mobile Unit which came out at the meeting at Chaco Canyon this past month. To speak truly, I have had some trouble in selling myself

MOBILE UNIT (CONT.)

on this bitumuls capping and wall repair for it just seems a little too good to be true. The reports would indicate that it checks out all right except for time, and for that we will just have to wait ten years.--F. P.

*****SWM*****

CASA GRANDE

By Albert T. Bicknell, custodian,
Coolidge, Arizona.

Visitors this month, 1,763; total since October 1, 30,173.

WEATHER

Days clear-----	15	Max. Temp.-----	113°
Days partly cloudy-----	3	Min. Temp.-----	57°
Days cloudy-----	13	Mean max. temp.-----	106.5°
Precipitation-----	1.45"	Mean min. temp.-----	72.6

This month the area around Coolidge has been subjected to very unsettled weather. Rain fell on nine days of the month, five of which showed rainfall in excess of .01 inch. The heaviest precipitation occurred on June 28 when .73 inch of rain fell during the evening and night. Most of the rains were preceded by wind and dust storms, making, on two occasions, actual rains of mud for a few minutes after the rain began to fall.

Temperatures were slightly higher than last month, but the mean maximum for the month fell almost two degrees below that of July last year. Mean minimum was almost exactly the same as that of a year ago. On only two days during the month the maximum fell below 100 degrees, which, coupled with the high relative humidity due to the frequent rains, caused considerable physical discomfort. The prevailing wind direction was from the west.

GENERAL

Visitor travel is holding up better this month than was expected. Only 31 fewer people visited Casa Grande this month than came here during June, and the total travel, 1,763 people, is an increase of 150 over the same period in 1937. The average time spent by the visitors has also increased; the increase amounting to 3.2 minutes in the ruins, and 2.2 minutes in the museum over the time spent by the average party last month.

The outside activities of Custodian Bicknell during the month were as follows: three trips to Mt. Elden CCC Camp, at Flagstaff, to deliver equipment for the camp; two trips to SP-11-A, near Tucson, to remove the last of the Park Service equipment from that camp; two trips to Phoenix - one for the purpose of consulting Major Hildring in regard to

CASA GRANDE (CONT.)

the side camp here, the other, to make pickups.

Our janitor, Teddy Baehr, had the misfortune to be bitten by a centipede on July 16. At the time of this report he is still confined to bed as the swelling in his foot persists and is aggravated if the foot is used.

NEWSWORTHY VISITORS

July 8 - 11, Mr. and Mrs. H. B. Chase, Project Superintendent from Bandelier CCC Camp, were house guests of the Millers. On July 23, Mr. A. E. Demaray, assistant director of the National Park Service, arrived here for a field inspection trip to include most of the Southwestern Monuments. While here, Mr. Demaray was escorted through the ruins and museum by Superintendent Pinkley.

Other visitors of note during the month were Fred Winn, Supervisor of the Coronado National Forest, and Assistant Supervisor Sam Sowell, on July 11; J. K. Barnes, Chief of Police from Houston, Texas, and his family on the 19th; and Professor O. M. Clark, Dean of the Botany Department of Oklahoma Agricultural College, on the 20th.

USE OF MONUMENT FACILITIES BY THE PUBLIC

Total travel, July, 1938, 1,763; 1937, 1,613; 1936, 1,142.

Of the 1,763 visitors to the monument, 1,485 were contacted on guided parties through the ruins, the museum, or both. A total of 9,279 minutes was spent in conducting 237 parties through the ruins for an average time of 39.1 minutes per party. In the museum, 4,382 minutes were spent with 184 parties, for an average time of 23.8 minutes. (See "Casa Grande Visitor Statistics" under the Headquarters division of this monthly report.)

During the month, 37 separate parties comprised of 368 visitors, made use of the picnic grounds. While most of these were local people, in some instances groups from as far as Tucson came in for picnics. One such group was a party of 10 Boy Scouts, 1 scoutmaster, 1 woman, and 1 baby, from South Tucson. Outside this group, one picnic of 21 local school-age children was the largest single group of people picnicking here during the entire month; a bit different than during May when every Sunday saw picnic parties of over 100 people. (Could it be the weather?)

Visitor travel by states is as follows: Visitors from 35 states, the District of Columbia, and the Territory of Hawaii were represented in the travel to the monument in the past month. States represented by more than 20 visitors were: Arizona, California, Illinois, Michigan, Texas, Oklahoma, New Mexico, Missouri. Arizona showed registrations of 782, or 45% of the total travel; California, 139, or 8%, while the number of Texas visitors increased materially over registrations from that state

CASA GRANDE (CONT.)

last month. Illinois is again back in the "over 20" column, and Michigan showed a good increase over June. However, Oklahoma and New Mexico showed a considerable drop in visitor registrations; Oklahoma being the lowest in several months.

CASA GRANDE CCC SIDE CAMP

Job No. 50, Shop: During the month, the cement floor was poured, making this building complete with the exception of the interior fittings and the doors. Man-days expended, 77.

Job No. 51, Warehouse: The walls and roof are complete and the outside of building lathed and ready for the plaster coat. Man days expended, 14.

Job No. 53, Guide and Contact Work: Holt, Rogers, and Coyle still on guide duty, Scholz working in Naturalist's Office, and Larry Mungerro, a new man, replacing Morales in the headquarters office. Man-days expended on this project, 89.

Job No. 5, Oil House: This building is now 40 per cent complete with practically all of the walls up at this time. Man-days expended, three.

Job No. 55, Making Adobes: During the month, 5,000 adobes were made for use in walls and buildings of the utility area. Man-days expended in this work during the month, 102.

In addition, five man-days were used in cleaning out the area to be occupied by the equipment sheds, for which no job number has yet been assigned. Also, 1 man-day was occupied in camp construction, not otherwise charged.

Teddy Savage is still assigned to assist Mechanic Stonehocker in the shop, but has not been in camp much during the month as he made three trips to Mt. Elden CCC Camp near Flagstaff to help transfer equipment to the new camp. One of the guides, Jimmie Rodgers, was also pressed into service, making two trips to the same camp.

Joe Hobbs, foreman at the side camp here, took a two week leave, returning the morning of July 25. In his absence, Ed Knagge from Chiricahua was in charge. During the month, five new men arrived from the main camp at Chiricahua: Larry Mungerro, Jerry Martin, Mendoza, Geronimo, and Jasso.

Safety meetings were held each Thursday evening, attended by all men in the camp. No religious services were held in camp this past month. There were no accidents during the report period.

It was found necessary to enlarge the storeroom at the camp. This was done the latter part of the month. The two refrigerators which had

CASA GRANDE SIDE CAMP (CONT.)

been inside the storeroom were moved out to the larger room where the air circulation was better, as the boxes were giving trouble and one had to be repaired during the month due to running too hot in the unventilated storage space. Ventilation for this back room was provided at the same time.

Camp inspections were as follows: July 1, Lieutenant Willson from NM-2-A; July 5, Mr. Dale and Project Superintendent Stevenson from NM-2-A; July 12, Project Superintendent Stevenson; July 12, Mr. Beatty, Educational Advisor from NM-2-A; July 11, Captain Harvey from SP-3-A, Phoenix, Arizona.

BEST STORY OF THE MONTH

One of the guides, Coyle, recently related this one which takes the prize for questions asked by visitors in recent months:

After he had spent some 30 minutes listening to Coyle explain the history of the Casa Grande and its construction and probable use, one visitor asked the guide if he knew how far these Indians would have had to go to the nearest town to obtain their supplies. Coyle replied that that was something he really couldn't answer. The visitor left, apparently thinking we had some rather dumb guides here, not to be able to answer such a simple question as that.

*****SWM*****

I had an interesting variation of that episode of Coyle's. Many years ago, one of my lady visitors asked two or three times in the course of the walk around the ruins why the Indians built "way out here". I thought I saw what was in her mind and tried to ease her out of her position by round about answers that this was where they could get water, land, etc. She finally put it plainly: "That may be very true, but it is so very far from either Phoenix or Tucson!" Needless to say, I could no longer save her from some spoofing from the rest of the party.--F. P.

*****SWM*****

TONTO

By Roland Richert, park ranger,
Roosevelt, Arizona.

Visitors this month, 320; total since October 1, 4,468.

From the viewpoint of the weather, July has been a characteristic month in that mid-afternoon thundershowers loom up almost daily. Heavy, moisture-laden, cumulus clouds roll in from some indefinite place over the horizon, band together, and then Thor cuts loose his big guns to release the cooling, welcome rain over a parched land.

TONTO (CONT.)

Our number of visitors increased slightly over last month, but fewer were willing to negotiate the half-mile ascent to the Lower Ruins. The vantage spot on the trail called "Perspiration Point" must have been christened in July because the humid atmosphere following the rains lends itself to the appellation. Nevertheless, those who make the climb declare that the panoramic vista overlooking the basin with the ribbon-like Salt River entering the lake in the far background and the rugged, pine-clad Sierra Anchas rising abruptly in the front of the picture, is sufficient compensation for the effort expended.

We are happy to receive four large new signs which should assist in sending the visitor tally away up after they are placed at the two junctions of the Apache Trail and the main highway. Study skin and herbarium cases are now property of the monument.

The prize this month for our farthest-away visitor goes without dispute to the Rev. J. Charles May, Latter Day Saints Missionary from Papiiti, Tahiti, and Society Islands. This South Seas group, made famous by Nordoff's and Hall's "Mutiny on the Bounty", is as Rev. May said: "The land of a salubrious climate, gorgeous sunsets, and devastating hurricanes".

The following is the weather report derived from the daily observations by Mr. Reynolds at Roosevelt.

Maximum temperature- - - - -	-111°	Days clear- - - - -	19
Minimum temperature- - - - -	67°	Days cloudy - - - - -	11
Total precipitation- - - - -	-1.95		

VISITOR STATISTICS

FIELD TRIPS		MUSEUM TALKS	
No.- - - - -	63	No.- - - - -	91
Attendance - - - - -	206	Attendance - - - - -	315
Time - - - - -	-2,640	Time - - - - -	-1,720
Average attendance - - - - -	3.3	Average attendance - - - - -	3.5
Average time - - - - -	41.9	Average time - - - - -	18.9

*****SWM*****

AZTEC RUINS

By T. C. Miller, custodian,
Aztec, New Mexico.

Visitors this month, 2,264; total since October 1, 13, 974.

GENERAL

July has been a busy month here at Aztec Ruins with heavy travel and

AZTEC RUINS (CONT.)

almost all guided visitors through the ruins and through the museum. Our guide force has been greatly undermanned all the month. It is believed that the increase in travel is largely due to improved roads in north-western New Mexico. The entrance road to this monument has received the finishing seal coat and it is now a beautiful pavement. Highway U. S. 550 from Aztec to Farmington has been completed and a decided increase in travel is noted. The work on the general upkeep of the monument is somewhat retarded due to the fact that most all of our time has been spent guiding visitors. To date we do not know how much money we will have for this fiscal year to run the monument.

The Custodian was absent from the monument on annual leave from July 1 to July 7. Ranger Peterson from Hovenweep and Yucca House reported for duty as instructed by your office July 1. Pete worked here as relief man to and including July 10.

MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTION

A shipment of linoleum was received and placed in the two west rooms of the Museum of the Administration Building, and the kitchen and bathroom of the Custodian's residence during the month. This new linoleum improves the looks of both places and is much easier to keep clean.

Ten five-hour man days were received during the month on weed eradication through the cooperation of the National Youth Administration.

NATIONAL PARK SERVICE OFFICIALS

Engineer Foreman Road arrived with his crew to make survey on Ruins Stabilization June 28 and departed on the 30th.

Custodian Faris and family were also here on June 28.

Thomas C. Vint, Chief Landscape Architect, Washington, D. C., Chuck Richey, and Mr. H. H. Cornell were here on official business July 2.

Ansel Hall, concession operator Mesa Verde National Park, was here July 2.

Homer Hastings and family from Chaco Canyon were monument visitors July 9.

Hugh Miller, Dale King, and Chuck Richey arrived and departed on July 13. Many problems were discussed with this party and it is believed that we will profit from their visit. Come again!

Gordon Vivian, archeologist foreman Chaco Canyon Mobile Unit, was here on official business, July 20.

AZTEC RUINS (CONT.)

Custodian McKinney was in two or three times during the month.

NEWSWORTHY VISITORS

Mr. Al Whiting of the Museum of Northern Arizona brought a brand new bride to the monument on July 4. Al's going to take care of Botany for the Museum of Northern Arizona again this summer.

Mr. Talma L. Smith and family, Washington, D. C., were appreciative visitors, July 11. Mr. Smith is a member of the Appropriations Committee, U. S. Senate, in Washington. He came after closing time, was over the museum, and then took an hour trip through the ruins.

And then there was the family from Wichita Falls, Texas, who went through the Ruins and the Museum on the morning of the 21st and came back for another ruins trip in the afternoon. The Custodian guided the party on the first trip, and Ranger Brewer the second trip. I introduced Jimmie to the party and told him that this was their second trip today. The party stated that it was the most wonderful trip through ruins that they had ever taken, then they told Brewer the same story on the second trip.

Paging Johnwill: A party came to the ruins saying, "We don't want to see all of the ruins. We just came to see the little man swing through the door."

RANGER ACTIVITIES

At night and during spare moments, Ranger Brewer has carved and painted a new sign. The sign is being used on the chain entrance across the cattle guard at the monument entrance. It reads..."Closed....Open 8:00 A. M. till 5:00 P. M." and is readable only when the chain is put across the entrance which is at 5:00 P. M. when the last party starts for the Ruins. Jimmie is to be congratulated on making a good looking sign which matches with the existing entrance sign.

WEDDING ENCORE IN THE KIVA

This wedding-in-the-Kiva idea seems to be taking hold. One was reported last month, and again this month the Kiva goes back to ceremony.

The Rev. Rishell united in marriage Mr. J. O. Nutt and Miss Hazel Roe on June 25. We don't know that it makes much difference, but the bride's name is now Hazel Nutt!

MUSEUM

The museum cases were moved during the month in order to put down the linoleum. Some of the cases were rearranged as they were somewhat shaken up from moving.

AZTEC RUINS (CONT.)

Miss Lorraine Lawson has acted as museum attendant five five-hour days under N. Y. A. during the latter part of the month. Miss Lawson is well qualified for the work and we only wish that we could keep her on this job every day during the summer months.

MOBILE UNIT NAVAJO CCC

Five Navajos arrived with one dump truck loaded with cement and ~~bitudobe to waterproof rooms on job No. 22, authorized by your office.~~ To date rooms one and six have been cleaned up and made ready for waterproofing of the roofs and drainage as well as the capping of the individual walls around the roofs of these rooms. The camp is located near the center of the monument, screened in by large cottonwood trees, and the Navajos seem to be well pleased with their camp site. It is hoped that the plans will arrive for wall capping before these boys complete the roofing job.

OFFICIAL TRIPS

One official trip was made to Chaco Canyon on July 18. It was noted on this trip that the approach road from Highway 55 to the monument headquarters was badly damaged in places due to heavy rains. The purpose of this trip was to go over some of the ruins stabilization work with Mr. Vivian and to make plans and receive instructions in regard to the CCC unit.

WEATHER STATISTICS

Maximum temperature-	- - - - - 93°	Clear days-	- - - - - 9
Minimum temperature-	- - - - - 47°	Cloudy days	- - - - - 4
Precipitation-	- - - - - -1.30	Partly cloudy days-	- - - - - -18

TRAVEL STATISTICS

Visitors to the monument totaled 2,264 for the month, coming in 647 automobiles and from 40 states and the territory of Hawaii. Foreign countries represented were Belgium, Canada, China, and Tahiti. Of these visitors, 2,112 were guided through the ruins in 255 trips. In 251 trips 2,113 persons were guided through the museum.

Total travel since October 1, 13,974. For the corresponding period of last year, 9,442--an increase of 4,532 people.

*****SWM*****

We know that George Boundey and Johnwill Faris, who have served at Aztec, will join the rest of us in a long sigh of relief that the entrance road from the bridge to the monument at Aztec is finally paved. It is less than a mile, but I don't know of any other mile of paving that we

AZTEC RUINS (CONT.)

needed more greatly than that; it could get slicker with less rain than any road I know of except that piece out near Mike Kirk's Trading Post before it was paved. That was slick road when it got wet; I have slid back and forth on that road after a light shower and, looking behind me, found dust in the skid tracks! Although I never experienced it, I am confident a light dew would have made that road slick. The fellow who was with me will remember the time we put on all four chains and crept past ten or fifteen cars in that half mile just west of the overhead pass. They were unable to steer and had to wait for the road to dry out a little.--F. P.

*****SWM*****

WHITE SANDS

By Tom Charles, Custodian,
Alamogordo, New Mexico.

Visitors this month, 16,830; total since October 1, 73,418.

It is with "fear and trembling" that I start this month's report. There have been more visitors than in any other month in the history of the monument. The registration books show 2,833 and please remember that only 14 per cent of our visitors register. The nearest to this month's registration was in August, 1936, when we registered 2,785. This month's visitors came from 46 states and nine foreign countries. If I could stop here it would be fine, but it is the speculative part of the count that I dread. According to the Mohun percentage, which is far and away the most complete we ever made, we have had 20,200 visitors for the month. That would be over 650 visitors a day; it doesn't seem possible.

Joe and I saw this coming. That was one reason we were so anxious to have an electric counter. The next best was to count them ourselves. So Joe counts cars as he works and has actually counted during 225 hours this month. I have counted on Sundays and holidays and have counted for 60 hours. Joe's average number of cars per hour has been 3.18 while mine was a shade over 14 cars per hour. Joe's count has been in the heat of the day when visitors are fewest, while mine ran from 10 A.M. to 8 P. M. So on the basis of 14 hour days, Joe's count gives us 5,340 visitors into the Heart of the Sands on week days and my count shows 5,880 on Sundays. Adding the usual $1/3$ who stop along the road, we have had 16,830 visitors this month. There is a strong chance that the first one is correct for Dave, the watchman at the building, tells us that 8 P. M. until midnight is the busiest time at the Sands. Those are what you would call local picnickers, I presume; but most of them come from El Paso, over 100 miles away. At any rate, we have had lots of visitors and I will be satisfied with credit for either 20,200 or 16,830 for the correct number is some place between these two points, I

WHITE SANDS (CONT.)

presume.

You would think from that count that conditions were ideal for the month. But they were far from it. It has rained, or threatened rain, most of the time for the past two weeks. Federal Highway No. 70 to Las Cruces has been impassible at least three different days on account of a wash out. But despite handicaps, July and August continue to be our leading months. And every day we seem to be tied more closely with Carlsbad. An amazing percent of the visitors tell us that they are here to visit the "Sands and the Caverns" on this trip.

Rains have helped conditions around headquarters the past month. The desert planting which looked rather disconsolate for a time is now as lively and green as a meadow. The road into the dunes of the Sands is back to its old velvet finish. Joe has had plenty to do but he has his road back to its original standard. Johnnie has a water tank installed on the top of the sand ridge west of the headquarters and the new pump is keeping it full without trouble. This supplies a fair grade of water for the planting and not too bad for drinking and makes possible the opening of the comfort stations for the public.

The drainage ditch over north of the headquarters was tried out last week for the first time and seemed to work to perfection. It is a good big ditch but the flood waters filled it bank full and it probably saved us considerable trouble down at headquarters.

Temperature at the monument has been fine, cloudy and cool most of the time. The highest temperature which I have registered was 118° F. at 2 p. m. on July 10. At the same time it was only 96 in the shade of the car. One hundred and eighteen isn't very hot for White Sands but I noted that one of our prettiest bathing beauties leaned against a piece of iron on the new car that day and the yell which was evoked created quite a commotion among the visitors. I wasn't in position to make much investigation for I do not see how there can be any liability, but I suspect there was quite a burn. I doubt if we ever hear any more about it.

On the hot days people usually refuse to stand in the sun and register, or to listen to any information about the origin of the Sands. Even the white mice and lizards fail to create an interest. Their chief amazement is that any one stays out there and takes it. And their interest is to get their car going and get out of there.

Among the official visitors thismonth were E. F. Preece, assistant chief engineer from Washington, and Jack Diehl, also Messrs. Underhill and Montgomery who were here in connection with the call for seal coating on our three miles of highway. This is to come up on August 12.

*****SWM*****

WHITE SANDS (CONT.)

Note, please, that we hold Tom down to his lowest figures for the month; we have to put a limit on him someplace or he will get clear away from us. Anyway, 16,000 visitors is enough for anybody to have in any month and after the thermometer passes 115 degrees a man's eyesight gets poor and he may begin to see double.

It won't be long now, we hope, before the new road is paved out in front of the headquarters and then we will have the traffic under much better control and can get an actual count on it at the office door as it goes through to the sands.

We went over the museum plans for White Sands the other day and it looks like the boys have something good in mind there which the visitors will enjoy.--F. P.

*****SWM*****

HOVENWEEP

By Alfred Peterson, park ranger,
Cortez, Colorado.

Visitors this month, 15; total since October 1, 140.

In accordance with instructions received from headquarters, I proceeded to Aztec Ruins National Monument, arriving there in the afternoon of June 30, having stopped at Mesa Verde National Park to see Mr. Nusbaum and make one trip to the cliff dwellings. July 1 to 10 inclusive was spent in official duty at Aztec, guiding visitors through the ruins. Jimmie and I were kept busy during the week of Cal's absence with many visitors.

On my way back to Cortez, July 11, a stop was made in Durango to have needed repairs made to 8113. That seems to be the only place parts can be located for this car.

On July 12, I made my first visit of the month to Yucca House. Mrs. Ray Ismay told me that several cars had been in and the people walked over the ruin mounds and "picked up a few pieces of pottery". She did not say how many people she saw. About a week later, on my next trip of inspection, I mounted four "warning" signs on the most conspicuous parts of the fence. What we need for Yucca House are a few of those metal "It is Unlawful - - " signs.

During the past month, there have been six cars in to the Square Tower Group bringing 15 visitors to see Hovenweep. Four of these were here on July 4 while I was at Aztec. Mrs. Ismay told me that local people had two relatives from California visiting and took them to see the ruins. The others were contacted by the Roving Ranger. One party of five were

HOVENWEEP AND YUCCA HOUSE (CONT.)

from a local trading post in Utah, about eight miles from the ruins. One lone traveler, a chemical engineer from Oklahoma, had been directed specifically how to find the place by Jimmie Brewer at Aztec. He spent considerably over half a day seeing the different groups of ruins. All the rest were from Mesa Verde--either people who had inquired for directions at Mesa Verde after seeing the Monuments shown on their road maps, or members of the ranger staff or Ansel Hall's assistants. Miss Betty Yell, museum attendant at Mesa Verde, and Gene Kingman were here on the 22nd. States represented are California, Colorado, Oklahoma, Utah, and Maine. The Maine representative was Mr. Soper, one of Ansel Hall's assistants, and whom I met at the University of Arizona about 1934.

Being interested in tree ring dating, I have been on the watch for wood specimens from these ruins. As previously mentioned, apparently somebody has already taken wood from the different groups, but still I find some. As yet I have not taken a piece of wood from a standing wall, nor have I taken any borings (having no borer), but I have found pieces of what evidently are beam ends in the debris of fallen walls. To date I have five of these and have sawed them up into workable pieces, ready to be packed and shipped if so desired. I shall first see what I can do in the way of dating them, but have very little hope of any success since they are all juniper and very poor wood for this purpose.

The other day we located four more section markers put in by the General Land Office. Most of these are within a half mile of the Square Tower Group boundary line, and near three of them are the remains of what appears to be homestead houses. Without exception, these houses had been made of prehistoric building stones from ruins nearby--probably Square Tower Group. I have noted these markers on the maps included with Jimmie's report of last year.

The weather has been typical of the region; thunder storms on every side every afternoon with an occasional local shower. The road to Cortez via McElmo Canyon is being much improved by a large road crew at the present time, and this should make it easier for visitors, until they reach the point where there is no road. I have decided that two or three little direction signs should be placed at the turns near Hovenweep--at least as long as I am here. When I leave, it might be well to remove them.

The gnats are very few at present, mosquitos not too numerous, but flies are a nuisance. Conditions are much pleasanter than last month.

On the 14th I went to the Cajon Group. Stock tanks were dry and have been for over two months. Several visits to Holly and Hackberry Groups were made.

*****SWM*****

HOVENWEEP AND YUCCA HOUSE (CONT.)

It would appear that any time we can get a man in charge of Hovenweep or Yucca House we can turn a fairly good number of visitors in to these ruins by the use of signs. We have not, thus far, tried to encourage visitors to come because the roads are slow and rough and, until we can get a man in charge to explain what they see, they will get little out of the trip.

Yucca House, especially, we look upon as a reserve monument, not to be visited by the public until many years hence when a large excavation project has opened it for research and study. Then, with a permanent man in charge and a good museum, it will be a very interesting monument.--F. P.

*****SWM*****

WALNUT CANYON

By Paul Beaubien, junior park archaeologist, Flagstaff, Arizona.

Visitors this month, 2,378; total since October 1, 8,649.

Contacts were as follows: 1,283 at station and 479 at the Observation Point. There were 62 picnic parties and 25 camping parties.

July 1, Ken Disher of the Indian Arts and Crafts Board, Washington, D. C., visited Walnut Canyon with a party that included Mary Louise Rogers of the Museum Division of the National Park Service.

A few days later, Dr. Charles N. Gould arrived to investigate the possibilities of drilling for a water supply. As none of the deep wells in this vicinity have proved successful, it seems that water for the monument must come either from a catchment basin or the Flagstaff water mains.

District Engineer Tovrea spent about two weeks here on engineering problems.

July 7, Chief Architect Thomas Vint, Hugh Miller, J. H. Tovrea, H. H. Cornell, A. C. Kuehl, Cecil Doty, and H. C. Parker inspected the proposed improvement areas of Walnut Canyon, Sunset Crater, and Wupatki National Monuments, and discussed plans for their improvement. Next day, Hugh, Al, Tov., and Project Superintendent Parker prepared a camp program for the current fiscal year.

Last month I reported that the CCC camp was to have its complement of boys early in July. They are now expected to arrive early in August. From the amount of planning for the camp, it seems there are some people who still believe there will sometime be a camp here.

WALNUT CANYON (CONT.)

Custodian Bicknell, Teddy Savage, and Jimmie Rodgers ferried a couple of trucks from headquarters to the CCC camp. They visited Walnut briefly.

Luis Gastellum was at camp several days checking equipment.

Ward W. Yeager inspected four "bug" trees, July 21. The trees are widely scattered, and no control measures were advised. Mr. Yeager seemed disappointed in not having any CCC boys to instruct in the art of fire fighting.

In general, the weather has been pleasant. It has been a bit dry but as this report goes to press, a good rain is falling. The summer rains have started, and I can worry about pulling visitors out of mud holes for the next month.

*****SWM*****

We agree with Paul that it is taking a long time to get the camp installed. In the meantime we have the plan of the ranger's residence approved and are shaping up the other plans. We are having a little trouble getting the administration building and parking area located to suit everybody. The Regional Office sent us down a nice looking plan but it threw the foot traffic directly across the parking area and we have asked for a revision. The administration building was first designed right on the rim of the canyon but we think we can get it back a little, closer to the parking area and with its floors more nearly on one level.--F. P.

*****SWM*****

TUMACACORI

By Louis R. Caywood, custodian, Box
797, Nogales, Arizona.

Visitors this month, 1,005; total since October 1, 13,145.

Very dry conditions prevailed in this section of the Santa Cruz Valley until July 24. There was one rain on June 28 and there were two night rains on July 20 and 21. The hardest rains came on July 24 when there were two heavy downpours, one in the morning and one in the afternoon. If these continue, the range should soon be in condition and all water holes will be filled.

The total number of monument visitors amounted to 1,005. Although this figure is below that of 1,157 for the same month of last year, it does not show such a decrease as have the past few months, as compared to the same months of last year. The visitors are almost entirely

TUMACACORI (CONT.)

Arizona people and their friends. The out-of-state travel is almost nil.

On July 24 this monument was highly honored by a long visit from A. E. Demaray, assistant director, Frank Pinkley, and Hugh Miller. This was Mr. Demaray's first visit since 1919 when he came with Mr. Pinkley. This visit was such that the entire plant was seen by Mr. Demaray.

Dr. and Mrs. A. E. Douglass and nephew, Andrew Douglass, were visitors on June 27.

Bishop Geroke of Tucson, Rev. Don Hughes, Msg. Timberman, Rev. Stoner, and Bert Underwood were visitors on June 29. The Bishop and his party were very pleased with all of the museum exhibits and especially the one entitled The Mass. The music has a great deal to do with its success.

Mr. and Mrs. Fred Winn stopped to see the new exhibits on July 14. Mr. Winn is Supervisor of the Coronado National Forest. Mrs. Winn said The Mass with its music was exquisite.

Msg. Duval and Rev. Donnelson were visitors on July 20. They enjoyed seeing the new museum exhibits, especially The Mass diorama.

The Santa Cruz County Chamber of Commerce is sponsoring the holding of a pageant in honor of the quadricentennial of the entrance of Fray Marcos de Niza to Arizona soil. As there has been so much inquiry into the status of the museum exhibits, I suggested to the secretary and president of the Chamber of Commerce that a meeting be held at the Tumacacori museum and someone could give a lecture on Fray Marcos de Niza. Father Stoner was asked to give the talk and was very pleased to do so. The meeting was held at 8:00 P. M. on July 7 with 60 persons attending. The local people now realize that the museum is worth while, but incomplete. Father Stoner gave a very good talk on Fray Marcos. Mr. Edward Edmondson, Mr. Thomas Hall, and Mr. Harry Karns, all of Nogales, gave short talks on the possibility and reasons for a pageant to be held next year at some time in April. At that time they hope that the National Park Service will have the museum completed so that dedicatory services may be held in connection with the pageant.

On July 22 the Custodian gave a lecture on Fray Marcos de Niza before 29 members of the Nogales Rotary Club.

During the month considerable time has been spent by the Custodian on setting up the lighting reflectors and experimenting with the lights for the museum cases. Several minor repairs were made to the exhibits. On July 22 Charles Steen, junior park archeologist, arrived from Coolidge to work on assembling the museum cases. The Custodian and Steen have since been working together on this and hope to set up a goodly number of the cases before he leaves.

TUMACACORI (CONT.)

A new hot air furnace has been installed and tested and is now ready for the winter season. It is electrically operated by a clock and thermostat. Mr. J. H. Tovrea was here on July 18 to inspect the furnace. On July 23 the furnace was operated for four hours by the installers, Hearn and Caid, and seemed to work perfectly. When the furnace is needed at the beginning of winter, they will return and see that it is in proper order.

*****SWM*****

I might say that on our recent visit we found the Chamber of Commerce very much awake to the value of a celebration of the four hundredth anniversary of the coming of Fray Marcos. In a fifteen minute talk, Mr. Demaray made clear how far we could go in such a celebration and expressed his willingness to have us help out if the ceremony could be kept on the proper plane.--F. P.

*****SWM*****

GRAN QUIVIRA

By George Boundey, custodian,
Gran Quivira, New Mexico.

Visitors this month, 357; total since October 1, 2,524.

On June 25, our rainy season started in with a vengeance and has either rained or threatened to rain every day since. Our one really passable road has been flooded much of the time. For more than a week water was up to the hubs on one stretch of over two miles.

The rains have put the grass on the range in wonderful shape and, although beans were planted very late, if we should have a reasonably late fall, there will be a bumper crop.

Work on the monument has consisted principally of scraping the roads, filling in washed places, and hoeing weeds.

Besides several coveys of quail, two deer are making their home on the monument.

About 50 CCC boys, who are excavating at the Abo ruins, spent an afternoon with us. They report some interesting finds at Abo. With several projects being excavated to the north of us, we can not expect many visitors the coming fall and winter. The crowd goes to where something is to be seen besides crumbling walls. Our walls have suffered considerably during the past month of rains. A small museum at this place to compete with the other museums being established in near-by ruins would interest the public greatly. About half our visitors this month

GRAN QUIVIRA (CONT.)

came to see a small object I found on one of the floors near the patio.

*****SWM*****

EL MORRO

By: Robert R. Budlong, custodian,
Ramah, New Mexico.

Visitors this month, 580; total since October 1, 2,002.

What some people have been pleased to call our rainy season is now well advanced, and we are hoping that before much longer we may get some sort of moisture. We have had a very few light sprinkles of rain, but more moisture is needed immediately. Roads remained passable the entire month, and visitors travel to this monument during July was the heaviest for any month since I have been stationed here.

Visitor travel bunches up on Sundays and holidays, and it is impossible to obtain complete registration. Actually, we had well over 600 visitors during the month, though only 580 registered; but when we have 15 or more cars parked before the cabin at one time, with more arriving and still others departing, and the custodian waving his arms around to direct traffic, pointing out items of interest, guiding parties around inscriptions and doing another thousand and one things simultaneously, it is impossible to make sure that back at the cabin all visitors are registering. The HCWP does her best to cook dinner, direct visitors, see that they register, keep track of time spent by them, and so on, but there are limits. We aren't complaining, for we realize we are extremely fortunate when we read of the trials and tribulations of certain other custodians and rangers. Especially do we feel like a couple of pikers when we find that at one particular monument, once administered after a fashion by one lone man, they now have only three men to do duty simultaneously at nine separate stations.

VISITORS

A total of 580 persons registered during the travel month and all were contacted. They made trips as follows:

Inscriptions, guided: Persons, 447; trips, 93; total time, 6,560 minutes; average persons per trip, 4.8; average time per trip, 70.43 minutes.

Inscriptions, unguided: Persons, 19; trips, 5; total time, 145 minutes; average persons per trip, 3.8; average time per trip, 29 minutes.

Trail, unguided: Persons, 122; trips, 23; total time, 1,650 minutes; average persons per trip, 5.3; average time per trip, 71.7 minutes.

EL MORRO (CONT.)

Office visits: Persons, 98; visits, 24; total time, 2,470 minutes; average persons per visit, 4.1; average time per visit, 102.9 minutes.

Picnics: Persons, 78; picnics, 11; average persons per picnic, 7.1.

Camping parties: Persons, 28; parties, 9; average persons per camping party, 3.1.

Mr. and Mrs. F. K. Vreeland and children arrived at the monument July 1 and camped here until the 5th. We were mighty sorry to see them leave, for in spite of the rather hectic time that resulted from crowds of other visitors over the holiday, we managed to visit with them for some time and will long remember with pleasure their stay at the monument. Mrs. Vreeland's water-color studies of flowers were greatly admired.

Jack Snow, photographer with the Navajo Service, paid two visits to the monument, being accompanied on his second visit by Clay Lockett, also of the Navajo Service. As might have been expected, their visits were all too brief as they were on official business.

Miss Bertha Dutton of the Museum of New Mexico and Miss Hulda Hobbs, both of Santa Fe, paid two visits to the monument during the month, camping overnight on the occasion of their second visit. We are looking forward to their next visit, which we hope will be soon.

HEADQUARTERS VISIT

This is deserving not only of special mention, but of a special heading, for it was the highlight of the month. The custodian paid an overnight visit to headquarters, arriving July 9 and departing the 10th, and derived much profit and great pleasure from the visit. My last trip there was two years ago, and I am strongly in favor of the field personnel making at least yearly visits to the headquarters office. The Custodian found the sudden drop from the 7,000-foot elevations down to close proximity to the infernal regions something of a strain, but the hospitality of the Boss and of Natt Dodge and the reception by the remainder of the headquarters personnel made the visit one long to be remembered. I lost some of my multitudinous cares, and also some pounds I could ill afford to lose, but it was worth it. The prolonged huddle with the Boss relative to cabbages and kings did me a world of good, and Natt's showing of his color motion pictures was a real treat.

EQUIPMENT

This office is now the proud possessor of a Kodaslide projector and a beaded screen, both of which were received recently. Although not listed as official lectures, since they were only experimental, six impromptu lectures have already been held using this equipment and, judging

by the requests coming in, we are going to have our hands more than full filling engagements. The custodian has his own 110-volt light plant, and it takes only a few minutes to place the entire thing in the pickup truck, or in his own car, and transport light plant, projector, and screen to some distant point and set up the equipment for an illustrated lecture. The projector was intended primarily for visitor education, but judging from the reception given by local persons, it is going to be useful for general educational purposes in the community as well. More on this later.

During the month, a microscope was obtained by transfer from Headquarters, and this has a multitude of uses in educational work. We greatly appreciate these new items of equipment.

WILDLIFE

The young Golden Eagle that hatched out this spring is now flying, having left the nest about July 12. Due to a rush of visitors about that time, the exact date of its initial venture from home was not noted.

INSCRIPTIONS

Work has now commenced on the photographing of each of our hundreds of inscriptions in order that we may have permanent records of them in the event of their obliteration or destruction in the future. One end of the cellar constructed last fall has been converted into a darkroom, and equipped with the necessary electric lights, chargers, tanks, table, etc., and the work of making these photographs of inscriptions promises to occupy many hours of time. This work should have been done 20 years ago.

WATER

Having heard persistent rumors for several months to the effect that within the next two decades somebody plans to drill a well here hoping to find water, I really shouldn't comment further on the pool of so-called water at the base of the rock, but it has reached a condition where it just about speaks for itself. No longer can we enjoy the cool zephyrs of evening as once we were wont to do, for now, borne on the vagrant breezes come fragrances from the pool reminiscent of a sewage-disposal plant gone sour. Perhaps the pool was a sight for sore eyes to the early Conquistadores, but they have been dead for centuries, and I am beginning to suspect that the water has been too. Last year birds that fell into the pool used to drown; now they either die of dust pneumonia or else walk out without getting wet. I put a couple of chunks of the stuff under a microscope and showed it to some of the folks who have been hauling it from the pool, and the entire community for miles around suffered an epidemic of nightmares. You must pardon my skepticism, and I'm willing to be convinced, but if there is anything to that rumor about a well, we'd like to know more about it.

EL MORRO (CONT.)

GENERAL

Word reaches me this evening that a party of tourists visiting the vicinity of the ice caves some 19 miles east of the monument became lost among the lava beds on the 19th, and were only found today, the 23rd. Apparently they had quite a harrowing experience, but it is said they suffered no lasting ill effects.

In closing may we extend a most cordial invitation to the personnel of the newly-established Southeastern Monuments to come out to the west and visit El Morro. Bring along a house and a well when you come and make yourselves at home.

*****SWM*****

We assure Bud it was as good for us to see him at headquarters and go over his problems with him as it could possibly have been for him.

Also, it really begins to look like a well: the money is set up and what we need now is a set of specifications and some bid forms. More than that, we need a location for the said well, because, as it goes, so goes the headquarters area--on the north or south side of the Rock.--F. P.

*****SWM*****

MONTEZUMA CASTLE

By Earl Jackson, custodian,
Camp Verde, Arizona.

Visitors this month, 1,490; total since October 1, 7,794.

SPECIAL VISITORS

Park Service: June 25 - Natt Dodge was in for several hours. We had an interesting and instructive visit.

July 14 - Al Bicknell was in with Teddie Savage and Jimmie Rodgers, CCC guides from Casa Grande Ruins. I was away on business when they arrived, but met them on the road as I returned.

July 21 - Luis Gastellum dropped in en route to Headquarters from the Mount Elden Camp and spent an hour and a half with us, seeing the Castle.

Other Visitors: June 25 - T. J. Parr, of the Bureau of Entomology and Plant Quarantine, was an interested visitor.

June 26 - Dr. W. W. Woods and his two sons, from San Marino, California, were especially interested visitors and campers.

June 29 - Theodore Moorehead, one of Great Britain's engineers in Bhavnagi, India, visited the Castle.

MONTEZUMA CASTLE (CONT.)

July 2 - Michael Carelitz, in charge of the designing and installation of the carriage and giant horseshoe bearing for the 200-inch telescope to be installed on Palomar Mountain in San Diego County, California, was a visitor.

July 4 - Dr. and Mrs. J. M. Greer of Phoenix were visitors. Dr. Greer is a widely known bone surgeon.

July 6 - Believe it or not: Mr. and Mrs. William Shakespeare, of Socorro, New Mexico, were visitors.

July 9 - From the State Teachers College at Silver City, New Mexico, 20 teachers, under the charge of Mr. Jess Bingeramon, visited the Castle.

July 11 - Dr. Edward Fleischer, a mathematics professor at Brooklyn College, New York, was a very interested visitor. His hobby is birds and he seems quite well informed on them.

July 15 - The Palo Verde Ranch School, near Prescott, Arizona, sent a party of 16 boys and members of their families to visit the Castle.

July 16 - Major and Mrs. John R. Scott, U. S. Army, were interested.

July 22 - Mr. H. J. Carns, of Nogales, told us considerable about the missions of southern Arizona and northern Mexico. It appears he has made a special study of them for many years.

WEATHER AND ROADS

Precipitation-	- - - - -	-2.04	Minimum temperature-	- - - - -	-52
Days cloudy-	- - - - -	6	Mean maximum	- - - - -	98.23
Days partly cloudy	- - - - -	15	Mean minimum	- - - - -	60.93
Maximum temperature-	- - - - -	108			

Good rains have come our way. As a result, road maintainers are able to do some good, and approach roads, with the exception of the one from Highway 79 via Cornville, are in better condition than last month. The Cornville Road is still under reconstruction.

Cattle look better than usual at this time of year in spite of the dry early summer.

On a recent drive by way of Stoneman Lake through Long Valley and south to Pine, we found the humus floor of the pine forest a literal mass of flowers. This is certainly a scenic drive, and we are surprised more people don't travel it.

MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTION

Several blisters on the new entrance road have been sanded. And we notice a few places where the oiled surface is breaking. This is probably because so much coarse gravel was used. There is one particularly coarse spot just at the beginning of the turn-around at the parking area. Parts of this have been patched, but we are going to have to tear up about 150 square feet and put in finer mix.

MONTEZUMA CASTLE NATIONAL MONUMENT (CONT.)

The museum was given a complete cleaning and rearranged, and a much more effective textile exhibit made.

All of the unsightly mess of gasoline, fuel oil, and lubricating oil drums was removed from near the parking area to the garage, and the new gasoline pump and underground storage tank put into use.

The ranger tent-house was given a coat of weather proofing compound.

Montezuma Castle was given a thorough cleaning out and sweeping.

Our water pumping system went haywire, but was repaired from spare parts lying around.

The pickup truck was cleaned and the bed painted, leaks in plumbing were traced and repaired, and general cleanup on grounds was effected.

ACCESSIONS

Practically all of the equipment for an automatic electric pumping system has been received and lighting equipment also is on hand.

PUBLICITY

A Prescott, Arizona, daily paper used our mimeographed information sheet about Montezuma Castle as the basis for an article.

PERSONNEL

Ranger Edwin C. Alberts surprised us all by bringing home a bride on July 6. She is the former Carey Davis of Holbrook, Arizona. The newlyweds are honeymooning at Montezuma Castle, living in the tent house by the creek. They are deferring their honeymoon trip until later.

This tent house, planned as only a temporary structure, has certainly developed a history. Built originally as the summer home for a convalescent, it was later the site of a honeymoon for Ranger and Mrs. Russell Farmer. It is now serving its second term in this capacity. Between times it ~~was~~ the home of Jesse and Jane Jennings, while Jesse was proving out as a Park Service man. While they lived there, the highest flood in history almost washed the tent house away, forcing abandonment for two days until the waters receded and the mud was washed off the floor. Then the foundation was repaired, and now we are waiting for something else to happen to this "temporary" structure. We would hate to see it die of old age before a ranger house is built.

Ranger Alberts took sick leave for two days, July 21 and 22. He was mighty sick for a while, but is back on the job now. Must have been a touch of the "flu".

MONTEZUMA CASTLE (CONT.)

MUSEUM AND EDUCATION

A small model of a cliff dweller ladder was made so visitors would get a better idea of how the Indians may have entered the Castle.

Twenty six new plants were collected, pressed, and sent to Jack Whitehead for positive identification.

During the month Dr. F. H. Douglas of the Denver Art Museum wrote Superintendent Pinkley to the effect that during a study of textile specimens from this monument he sent some slides of the material used to Mr. Volney Jones, of the Ethnobotanical Laboratory, University of Michigan. Mr. Jones reported some of the specimens contained a material which most closely resembled the fiber of the basswood tree. At Dr. Douglas' suggestion, we have sent a number of these specimens to Mr. Jones for more complete study. It is with much interest we await this report and the possibility that it may establish use of a new textile fiber in aboriginal southwestern weaving.

All our museum and educational equipment was inventoried during the month.

GENERAL

From the Custodian's viewpoint, things have gone nicely this month. A number of things that needed doing were done and, insofar as we are able to tell, the public had no cause to feel neglected.

Several campers came in as if in answer to my statement in last month's report that no more campers were appearing. These people seemed much impressed with the place and left pleased.

Betty Jackson's bird report will be found on page 73 of the Supplement.

It may be of interest to you to note that several parties have been here lately who told us they had left their house trailers in Flagstaff and Prescott, rather than navigate the mountain roads with them. It has been some time since a house trailer has been seen here, although two or three small trailers of the luggage-tote variety have appeared.

¡Hasta la vista!

*****SWM*****

CHIRICAHUA

By Frank L. Fish, custodian,
Douglas, Arizona.

Visitors this month, 1,003; total since October 1, 7,557.

July has been a wonderful period here in the Chiricahuas this year in respect to weather. We have had ten days out of twenty three in which rain fell on the monument. A cloudburst on July 18 at the mouth of Bonita Canyon and the administration area registered three inches of precipitation in about three quarters of an hour. Some hail accompanied the storm. Practically all the culverts on the entrance road below the Faraway Ranch were blocked by sand. And much of the road surfacing washed away in spots. Mr. Stevenson had a crew of enrollees open the culverts and clean the drainage ditches soon after the storm. You are referred to his report, following this one, for the amount of work necessary. Range conditions as a result of the rains are much improved and with livestock prices advancing, the stockmen's position appears much brighter.

Labor conditions have not improved materially as yet in this area. However, if copper prices keep increasing it should alter that in a short time. The Phelps-Dodge Corporation have received a government contract which assures their present employees steady work for some time. The Shattuck-Denn have closed their mine and have kept only a skeleton force.

Visitor attendance shows a loss of 214 this month as compared with July of 1937. However, the year as a whole shows an increase over last year. Out-of-state people appear to be as numerous as in the past. No large parties entered the monument this month. Douglas held an American Legion Convention during July 3, 4, and 5. This may have kept many local people from visiting the Chiricahuas.

TRAVEL STATISTICS

	<u>Cars</u>	<u>Visitors</u>	<u>Out-of-state</u>
1938	253	1,035	225 in 45 cars
1937	279	1,247	
Decrease	26	214	

Total stay of all visitors amounted to 65,035 minutes.

National Park Service officials were: Associate Director Demaray, accompanied by Engineer Tovrea on the 25th. We took them over the Echo Trail and around the administration developments and enjoyed the trip very much. Tovrea and John H. Haile were here inspecting on the 21st. George Sholly and family from Bandelier were visitors on July 22.

Gordon Gilbert Philp entered on duty July 1 as temporary ranger. "Gil" is making an old hand with the visitors on Sundays and rush days.

CHIRICAHUA (CONT.)

Odd moments are devoted to collecting birds and mammals for display and study purposes at the monument.

Ora M. Clark, Dean and Professor of Botany of the Bristow Junior College, Bristow, Oklahoma, was an interesting visitor and helped out in classifying many plants of this region for my benefit.

Due to heavy rains in the Chiricahuas, only one fire was reported for the month, that being a lone pitch snag just across the eastern boundary of the monument. The fire was controlled by Mr. Stevenson and Ray Ringenbach, his clerk. They had the novel experience of getting soaking wet going to the fire. The Forest Service has been able to lay off their lookouts at the present writing. However, we are keeping ours on duty until we are a little more sure the fire season is over.

Roads approaching the monument are in the same status as last month with added gains toward completion of construction. Pinery Canyon is being improved by the Forest Service. They have a work crew staying at the local CCC camp.

Fred Winn favors a road into this area from Bowie, via the Old Fort and Apache Pass. He still desires aid on a trail to Cochise Head. Both he and John Ball inform me there are nice formations around that area.

*****SWM*****

CHIRICAHUA CCC

By William Stevenson, project
superintendent, Douglas, Ariz.

Work was resumed on the back-sloping project July 5. Five hundred square yards of rock banks were sloped on Bonita Highway approximately three miles north of the Sugar Loaf truck trail intersection. Materials were used to widen fill slopes. In connection with this project, 250 man-days were used removing objectionable "overcast".

A cloudburst on July 18 washed the lower two miles of Bonita Highway to such an extent that 500 man days were required to repair the damage. Culverts were blocked and ditches filled which caused the loss of surfacing on approximately one-half mile of road. Also, the capacity was increased on some arroyas so that new drainage structures may be required in the near future.

All materials have been received for the exhibit cases for the Administration Building and the cases are now being fabricated in the carpenter shop.

CHIRICAHUA CCC (CONT.)

Work was started on the warehouse June 30. Footings have been poured, sewer line connected, and walls completed to a height of five feet.

Work continued throughout the month in the rock quarry.

Bridge No. 1 is 100 per cent complete, which marks the completion of the Bridges project.

Seventy three enrollees were transferred to this camp June 30 and 15 additional were enrolled July 7, making our present company strength 193.

*****SWM*****

CANYON DE CHELLY

By Johnwill Faris, custodian,
Chin Lee, Arizona.

Visitors this month, 223; total since October 1, 943.

With time passing so quickly as it is, I'd better start wishing the boys a Merry Christmas and A Happy New Year. Perhaps it is that time passes more rapidly when one is busy, because we have been plenty busy here the past month. At least Bill and Woody have been on the go.

Our visitor table shows that we are still a few under July of last year with our 223 for this month. I have not figured out the time on the two months, but I feel certain that more time has been spent on each party partly due to the fact that we have been unable to drive into the canyons and the rim trip was stressed to avoid any disappointment in not being able to get up the canyons. Even the concession car is forced to turn down trips into the canyons because of the sand being so deep. Cozy will get through if anybody can and, while he is trying it again today with a party, I certainly can not blame him for not taking his car into the sand even with his equipment. With the long dry spell that we have had, I expect that when it does rain it will be necessary to use boats to get around. A little shower the other day was not even enough to test out our new grading around the residence. I think that it will be necessary to do a little hand work to assure us the proper drainage, and a good rain will tell the tale.

Odd jobs about the place have kept Woody and Bill both pretty busy. The major portion of the work is in the big room where we put on a prime coat and covered with a cold water paint in white and ivory. It leaves us a beautiful room and, while we are at it, we will paint a bedroom and fix up some of the floors.

Several official parties visited us during the month. One of the rangers from the Petrified Forest was in with his wife early in the month. A couple of the boys from the Forestry Division stopped in for a night and day. We took them up the canyon. They report no serious infection within the monument area and it was not necessary to burn any trees. One of the boys, I am sure, will vouch for the fact that in case of an emergency we can supply the water. Boss, I think that anyone who steps into one of possibly two waterholes in the entire 83,840 acres should really be given a medal.

Most of the inspections of the month were on the rim, due largely to the fact that we have had excellent control over the canyons. Boss, Nature is a grand ranger when it comes to controlling canyon travel. Just this afternoon a CCC employee was telling me of the marvels of big wheels all around. We did get up much better than I do with the small tires in front, but because we were so sure of the car, we stopped in a very sandy spot and dug the rest of the way out to a hard spot. The car just will not make it under all hazards that exist at the present setting.

We had a couple of horseback trips with Bill and Sally as guides. Speaking of Bill and Sally; the fourteenth of the month we started them out with 10888 for Blanding, Utah, to trade cars with Zeke. They were routed via Navajo in order that they might see one of the monuments. They report a very nice trip and speak most highly of Zeke and Bill Leicht. The Model A that we received in trade is the pet of the monument now and we feel quite proud of the addition. It is much easier to push in the sands.

Minor improvements have been made in the garage and tool units of our area. Bill has turned out to be a real carpenter. He constructed quite a box to fit into the back of the pickup for tools, etc. Green paint on our gas pumps make them much more attractive and in accordance with the regulations. Repairs to our weather station puts us in a position to report to the Weather Bureau once again.

Nature observations appear on page 71 of the Supplement.

Well, Boss, as this is being written the place is filling up with visitors: three campers this evening, two other parties for a trip in the morning, and reservations made for two other parties Friday and Saturday. So it looks good for a start in August.

*****SWM*****

NATURAL BRIDGES

By Zeke Johnson, custodian,
Blanding, Utah.

Visitors this month, 188; total since October 1, 422.

July has been an ideal month out here; cool all month and cloudy every day with several fine showers. It is very cloudy today and looks as if we may have rain any minute. There has been much more rain at the Bridges than at Blanding, with several small floods down both Armstrong and White Canyons. Grass is still plentiful in the canyons and there are flowers everywhere. I have never spent a July out here as cool as this month has been.

Roads are in good condition, and now that I have the pickup it is easier to keep the approach road (or tumble-in as I sometimes call it) in better shape.

There have been 188 people register and I have contacted all but 13 of them. I spent at least 60 minutes with every group as it takes that long to visit Owachomo. Then I have hiked to all three bridges and the ruins with 56 people. I hiked over to Sipapu and back with 28. Seventy four people saw all the bridges, 46 saw Owachomo and Sipapu, and 68 saw only Owachomo. I spent all the time possible with each group, and it is hard to keep track of the number of minutes spent with each person.

I know that I have been plenty busy. July 24 was the only day this month that no one came, so Mrs. Johnson and I spent Sunday together. We have many over-night campers and some stay two nights. So many people come expecting to find cabins and eating houses. Right now I want to thank our Uncle and all concerned who sent us the refrigerator. It surely is a life saver this year. So just come up and see us and we can treat you plenty cool.

Two records have been broken this year. The oldest man now that has made the hike to all three bridges is 78. Before, it was 77. The youngest child to hike to all three was five, now it is four; a Blanding girl, and she came back bouncing like a rubber ball.

There have been a lot of photographers this month--five different outfits hunting pictures to show in the East. I always ask them to leave a few pictures for the other fellow.

On July 1, Mrs. Johnson and I started for the monument in our personal car, which was well loaded with groceries. We got out 15 miles when, rounding a small curve, we saw a CCC truck coming very fast. So we pulled to the bank on the right hand side of the road and just as we got stopped the truck hit us head on. Oh what a mess! Mrs. Johnson was hurt on the head, shoulder, and knees. A Mr. Hatch came along and I got him to bring us back to Blanding.

NATURAL BRIDGES (CONT.)

I notified the CCC bosses. A lot of them went out with measuring sticks and took photographs galore and exonerated the truck driver. There was no reason why he could not have passed us OK, but he said his boss told him not to pull out into the sage brush to pass anyone; so we got hit.

The next day very early we tried to start the pickup but could not as the battery was down. So we towed it to the garage and hooked it to the light plant for a few hours, then off we went out to our car, transferred all the supplies, and arrived at the Bridges OK. On July 6 we tried to start the pickup, but nothing doing. It just wouldn't start. Then I got a car hooked on ahead of it and finally got it started, getting back to Blanding safely. On the following morning we came back and left the car up on a hill where we could get a good start and had no trouble after that. We were very glad when Sally and Bill Lipprincott came and traded us a V8 for the Model A. We have had no more trouble and the V8 runs fine after having the horn and lights fixed up so they would act. Now Mrs. Johnson and Zeke are glad we were not in the pickup when we were hit for I fear there might have been a different story. That little car has the gas tank so close to our faces that I believe we would have been hurt worse than we were. We are very glad the mixup was no worse.

Boss, I felt very bad when I saw by the last Monthly Report that I had credit for only 67 visitors and no contacts. How did it happen? I had 138 visitors and all were contacted except 11. I don't know how the mistake was made.

*****SWM*****

Zeke, the reason your figures were too low last month was that I had to guess them in by myself. I did the best I could but got the total too low. We had to have the statistics table made up and studied before your report reached us. We didn't want to leave your monument out because we knew you had been doing a lot of walking and talking that month. So we just did the next best thing and estimated them. We called attention to the fact that when the figures finally arrived we found we had undershot the mark.--F. P.

**** *SWM*****

CAPULIN MOUNTAIN

By Homer T. Farr, custodian,
Capulin, New Mexico.

Visitors this month, 7,500; total since October 1, 15,700.

I have been itching for a visit from my Boss, or Hugh, or some of the good old gang from headquarters; when?

CAPULIN MOUNTAIN (CONT.)

The Custodian here has been pretty busy all the month keeping the road passable. I have worked nine days this month on the road or, at least, parts of the nine days. We have had two heavy rains that washed out the road which simply had to be repaired. One rain made the road impassable, but I got right after it with a light grader and that afternoon cars were going up again.

The Custodian made many visitor contacts this month but was too busy with the road to give them much attention. Only a "Good morning", or "Howdy", a smile and "Glad to have you come and visit our Monument, hope you enjoy it", was about all the time I had except two or three trips when I took parties up there and spent a few hours with them. I am thoroughly convinced that 99 per cent of our visitors here really enjoy this monument. They say they do, most of them in no uncertain tones. I have noted cars from 21 states, the District of Columbia, and Canada.

WEATHER

From July 1 to 15 we had warm weather. But since that time we have had nice cool days and nights. Four good rains during the month have made this monument put on her best coat of green and now she is a beauty. Flowers and bushes are all abloom and grass is the finest it has been for many years. We have a wonderful crop of pinyon nuts and acorns and our fauna here should be well fed for the winter.

We have a swell crop of deer and also of the small animals. I believe we have something like 15 to 20 deer. Of course, it is hard to count them except in winter.

I fear a fire hazard this fall and winter and will use all the caution possible as soon as the monument gets really dry. However, we had a considerable fire hazard last fall and winter and had no fire, for which we are very thankful.

ROAD CONDITIONS

Our principal highway, 87 and 64 near this monument has been pretty busy, in spite of the repair work going on all summer on 87. This has been oiled from ten miles east of here to 30 miles west. But within a couple of weeks will all be finished and then it will be the best highway across the state.

A Mr. Oliver, from the East, interested in things of long ago, was here last week looking for the Folsom man near Capulin. I gladly gave him all the information possible but informed him I had only lived here 30 years and did not know the man personally.

*****SWM*****

BANDELIER

By C. G. Harkins, custodian, Box
669, Santa Fe, New Mexico.

Visitors this month, 2,702; total since October 1, 9,454.

The weather for the month of July has been warm but not too hot. Although dry the first part of the month, we had some very welcome showers the last two weeks of July. The approach road to the monument has been maintained in the best possible condition. Although very rough from Pojaque on Highway 285 to the Otowi Section, we have had a good many favorable comments on the remainder of the road to monument headquarters.

Our travel during the month of July is a little under the same month in 1937. The bulk of the travel through Santa Fe this summer has consisted of railroad excursions. We have been fortunate in having several large groups visit the monument and these groups have been amply taken care of by our very efficient temporary rangers. One large group of 165 Catholic Sisters from Albuquerque and vicinity were very much interested in our ruins and museum. They spent nearly the entire day picnicking and visiting the ruins.

WEATHER

For the month of July, weather conditions have been typical of New Mexico: hot days and cool nights with occasional showers. Following are the weather statistics for July:

Maximum- - - - -	96°	Days clear- - - - -	12
Minimum- - - - -	45°	Days cloudy - - - - -	8
Mean maximum - - - - -	-85.90°	Days partly cloudy- - - - -	11
Mean minimum - - - - -	-52.41°	Precipitation - - - - -	2.41
Mean - - - - -	-69.15°		

MAPS

Painting of the relief map was completed this month. This map has been placed in the office lobby where it arouses a great deal of interest among our visitors in that they want to see what our road looks like with all its turns and twists; especially the visitors from the plains of Texas. One lady was astonished to think the prehistoric inhabitants of this region would build their homes out here in Frijoles Canyon so far from the railroad.

NEW EQUIPMENT

An air compressor and a one-ton chain hoist have been received for the garage, in addition to two electric washers and ironers for the hotel development and residential areas.

BANDELIER (CONT.)

A wall Multiplex, size 24" x 36" has been installed in the office lobby. Now we need something to fill it up.

APPROACH ROADS

Indications are very good that we will get our entrance road and the parking area paved before winter. The deplorable condition of the road from Pojaque to the Otowi Section has discouraged a good many visitors. Pojaque Wash has had considerable water in it and as the road runs down the middle of the stream, a number of cars have been stalled and had to be pulled out.

PARK INSPECTIONS

Weekly inspections have been made of the Otowi Section. Farmers in the lower valley have been moving their cattle to the Santa Fe National Forest Reserve and driving through the Otowi Section. So far very few have been noted within the boundaries or remained more than one night.

MISCELLANEOUS

The State Fish and Game Commission brought 1,400 native and rainbow trout on July 12. These were liberated in Frijoles Creek near the Ceremonial Cave. On July 14, 8,000 more were taken to the Upper Crossing, making a total of 22,000 fingerlings between two and five inches in length planted in Frijoles Creek this season.

(NOTE: Report of the finding of a skeleton in the Otowi Section is given on page 80 of the Supplement.)

TRAVEL

Travel has been very good the past month. There were 2,702 persons who visited the monument in 681 cars from 34 states and three foreign countries. Our visitors made 173 trips through the ruins with an average of 9.27 to the party and 85.7 minutes per group. One hundred five parties were shown through the museum, averaged 6.26 persons per group, and stayed 18.1 minutes per group.

NEWSWORTHY VISITORS

Ninety-four members of the Leadership Training Company, Colorado-New Mexico Conference, United Brethren, were shown the ruins and museum.

Brown-Moore School, of Santa Fe, 28 members, made a ruins trip including the Ceremonial Cave.

Professor E. T. Renaud, of the University of Denver, with a group of students visited the monument the latter part of the month.

BANDELIER (CONT.)

Renaie Ferguson, famed writer of Albuquerque, visited a short while at Frijoles Canyon Ranch.

A group of 165 Franciscan Sisters from Saint Anthony's Orphanage, Albuquerque, formed by far the most interested and interesting group to visit the monument this season.

SIGNS

A new sign for the Otowi Section at the junction of the Los Alamos Ranch School's road and State Highway No. 4 is being designed by the Branch of Plans and Designs of the Regional Office. New signs are also being designed for the junction of the entrance road and State Highway No. 4 at the monument boundary.

NATIONAL PARK SERVICE VISITORS

Park Service visitors this month were: Jack Diehl, regional engineer, Santa Fe, New Mexico; John S. Cross, assistant chief engineer, Washington, D. C.; Tom Vint, chief architect, Washington, D. C.; Charles A. Richey, associate landscape architect, Santa Fe; Leo McClatchey, public informant, Santa Fe; A. E. Underhill, road-oil foreman, San Francisco, California; and H. A. Montgomery, assistant engineer, Santa Fe.

CONTACT PROBLEM

The problem of talking the proposed self-guiders into taking a guided trip is still with us. We find that a little super-salesmanship at the first contact by the car checker dissuades some from their plans, but there still remain those who go to the camp ground or hotel for lunch and then from there form their own tour. Sometimes these are met in the ruins by a party and talked into going along, but the percentage still remains high in their favor. The longer average time in the ruins and museum can be attributed to the change in counting time without joiners and break-offs, and also to the fact that individual guide times are longer.

FLORA

Ranger Spuhler has devoted one day a week to collecting plants for our herbarium. These will be forwarded to your office shortly for identification.

Nature notes from Bandelier appear on page 68 of the Supplement.

*****SWM*****

BANDELIER FORESTRY

By James T. Fulton, forestry foreman,
Box 669, Santa Fe, New Mexico.

FIRE CONDITIONS

Nearly three inches of rain has fallen this month; vegetation is green. The soil contains a quantity of moisture and the litter and duff is moist. As a result, the hazard of fires is at a minimum. June and July of this year have approached the normal for the Northwest insofar as precipitation is concerned. Judging from this, we might well look forward to low hazard for another month and then relatively dry conditions for a short period--the last of August and the first of September. However, I am unwilling to wager on this prediction. I am only hoping that such is the case.

FIRE FIGHTING

No fires have occurred this month.

*****SWM*****

BANDELIER CCC

By H. B. Chase, project superintendent,
Box 669, Santa Fe, New Mex.

Plumbing has been completed and all doors have been assembled and installed in the lobby and sales room building. During the later part of the month, a small crew has been painting and staining the walls and woodwork in this building and only a few more days of painting remain before we can call this a 100 per cent completed project.

During this month, most of the plumbing fixtures have been installed and approximately 60 per cent of the flagstone flooring has been smoothed by grinding in the operator's residence. There remains only a small amount of plumbing and the decorating and plastering to be done before this will be a completed project.

All fixtures have been installed and decorating completed on the employees' dormitory. This building is now 100 per cent complete.

Wall construction of Cabin "A", Unit No. 11, of the Operator's Development, has been completed to parapet wall height and all vigas, lintels, aspen ceiling, etc., have been installed. At the present time rough plumbing is in process of installation.

The second guest cabin, Group "B", was started on July 14. The excavation has been completed, all footings in place, and approximately three feet of all walls constructed.

BANDELIER CCC (CONT.)

During the later part of this month, the cable was received for the power lines. At the present time the junction boxes on this line are being installed.

Although we have kept the usual crew in the rock quarry, activities have been somewhat handicapped due to the fact that both of our compressors are worn out beyond repair. We were able to borrow a compressor from the SP-1-N camp in Santa Fe on July 27, but do not know how long we will be able to retain it. It is our hope we will be able to procure a compressor from some source in the near future.

Although the carpenter crew has been kept busy most of the month with duties in connection with the different units of the Hotel Development Project, considerable progress has been made on the dining room tables under the furniture project. Also one project assistant and an enrollee have been busy since July 18 constructing tin fixtures and mirrors for installation in the operator's development.

*****SWM*****

CORRECTION

Ocmulgee Archeology, an article which appeared on page 551 of the June, 1938, Supplement, has received considerable publicity and has drawn the following correction from Jesse Jennings, acting superintendent of Ocmulgee National Monument, Georgia:

"I am very sorry to say that I am not the author of that brief summary, although I would cheerfully accept responsibility for it. Gordon Willey is the author".

Our apologies to both Jesse and Gordon. We are mighty glad to have had opportunity to run the article, but very sorry that lack of a by-line caused us to misplace the credit and hope that this correction will straighten up the record all around.--Ed.

BILL WIRT PASSES ON

On June 23, following an operation for kidney stones, Regional Forester William H. Wirt died in a hospital at Albuquerque, New Mexico. The news came as a shock to Park Service personnel throughout Region Three where Bill's good nature, friendly personality, and efficient work had made him a multitude of friends. The body was sent to Yakima, Washington, for burial.

*****SWM*****

HEADQUARTERS

BRANCH OF MAINTENANCE

By F. E. Stonehocker, general mechanic, Coolidge, Arizona.

Activities of the General Mechanic for the month of July are as follows:

Painted Chevrolet dump truck, USDI No. 8116.

Installed new gas range in Custodian's quarters.

Spent two days repairing, cleaning, and loading out equipment to go to Mount Elden CCC Camp.

One day spent grading new utility area; another in moving equipment to the new location in the utility area.

Laid linoleum in park naturalist's residence.

Made a time-card holder for custodian's office and repaired door to the herbarium case in same office.

Ground valves on the caterpillar tractor which was to be sent to Mount Elden.

Made a trip to Mount Elden CCC Camp with grader and bulldozer for use at the camp.

In addition, carried on all the regular servicing and repair jobs on motor equipment at headquarters, and helped Frank Chase on some of the CCC repair work.

No new equipment was received during the month.

Transferred grader, bulldozer, and miscellaneous small tools (CCC) to Mount Elden CCC Camp.

*****SWM*****

BRANCH OF EDUCATION

By Dale S. King, park naturalist, Coolidge, Arizona.

Park Naturalist King was on duty at headquarters during the month except for a 3-3/4 day trip, July 10 through July 14, to Chaco Canyon and Aztec Ruins National Monuments on an inspection of the work being done by the Mobile Unit. Junior Archeologist Steen was on headquarters duty until July 21 when he was detailed to Tumacacori National Monument to assist with the museum installation project there. Junior Naturalist Natt N. Dodge spent the whole month at headquarters.

Temporary Ranger-Historian Gertrude Hill spent the month at head-

BRANCH OF EDUCATION (CONT.)

quarters on work connected with the Southwestern Monuments Loan Library.

Following is a resume of the time devoted by members of the staff to various projects:

	King - Steen - Dodge - CCC			
	Days			
<u>General Office Overhead</u>				
Correspondence (138 letters)	7	3/4	1-3/4	0
Conferences and discussions				
With headquarters staff.	1/2	1/4	3/4	0
With visiting scientists	1/2	0	1/4	0
With NPS personnel	1/4	0	0	0
Library (file, issue publications, etc.)	0	0	1/4	0
Reports				
Compiling and processing annual and monthly reports.	1	6	16-1/2	14
To Washington or Region III offices. . .	1/2	1/4	0	0
Miscellaneous.	0	0	1	0
Publicity				
Prepare Info. and Publ. material	0	0	1/4	0
Check Region III publicity releases. . .	0	0	0	0
Miscellaneous				
Construction (Painting, carpentry, etc.)	0	0	0	0
Wrap and ship requested material	0	1/4	0	0
Clean-up, maintenance, & inventory . .	1/2	1	1/2	0
<u>Research and Education</u>				
Public contact				
Prepare and deliver outside talks. . . .	0	0	1/4	0
Relief guide duty at monuments	0	0	0	0
Office visitors (informational).	0	0	1/4	0
Museum and Nature Trails				
Acquire and prepare specimens, catalog .	1/4	7-3/4	1/4	0
Acquire equipment and supplies	1/4	0	1/4	0
Planning	5	1/2	0	0
Arboretum planning, planting, mainten. .	1/4	0	0	5
Visual Education				
Slide and motion picture library work. .	0	2-1/4	0	0
Filing prints and negatives.	1/4	1-1/2	1-3/4	0
Taking and processing photographs. . . .	0	0	1/2	0
Miscellaneous				
Bird banding and observation recording .	1/4	0	1/4	1
CCC Side Camp Educational program. . . .	1/2	0	0	0
Ruins stabil. project administration . .	0	0	0	0
Antiquities program administration . . .	0	0	0	0
Mobile Unit.	4-1/2	0	0	0
Southwestern Monuments Association	4	1/2	1/4	0

BRANCH OF EDUCATION (CONT.)

	King	Steen	Dodge	CCC
<u>Field Work</u>				
Field Trips (Tumacacori museum).	0	4	0	0
Organ Pipe Patrol.	0	0	0	0
<u>Leave</u>				
Annual	0	0	0	0
Sick	0	0	0	0
TOTAL FOR THE MONTH	25-1/2	25	25-1/4	20

VISITORS

Project Superintendent William Stevenson, Project Superintendent H. B. Chase, Custodian Robert Budlong, Vernon Yelton of the Biological Survey, Maintenance Man George Sholly of Bandelier, Assistant Director A. E. Demaray, and Regional Wildlife Technician McDougall.

SOUTHWESTERN MONUMENTS LOAN LIBRARY

Lantern slides in the filing cabinets were re-filed, and the collection for the first time placed in good order.

REPORT OF THE HEADQUARTERS LOAN LIBRARY, by Gertrude F. Hill, temporary Ranger-Historian.

Work on the Headquarters Loan Library progressed very rapidly during the period from June 29 to July 25. A large portion of the material remaining unclassified for so long has been cataloged and placed upon the shelves, ready for use.

Efforts were concentrated on the typing of author and subject analytic cards for articles in the library's files of the American Anthropologist, American Antiquity, and Southwestern Lore. Helpful material on anthropology and archeology is thus made more easily available for reference.

The "Books Wanted" file begun last month was increased by the addition of 242 new entries, most of them annotated as to the type of book, the publisher, date of publication, price, and where a review of it is available. Additions were made to the bibliographical files anent the Southwestern Monuments, and a second file of materials pertinent to the work of the Branch of Education (such as reports on museum planning, visitor contacts, etc.) was begun.

The acquisition of 26 new steel book cases greatly facilitated the work of the Ranger-Historian this month, as space for newly cataloged books has been practically nil. Half a day was spent in rearranging the shelves to provide for future growth of the collection.

BRANCH OF EDUCATION (CONT.)

Summary of activities from June 29 through July 25, 1938:

Books cataloged:-	- - - - -	168
Cards made:-	- - - - -	1,728
Author:-	- - - - - 214	Shelf list and accession
Subject:-	- - - - - 616	record:- - - - - 362
Title:-	- - - - - 34	Bibliography:- - - - - 218
Joint author and cross ref.	42	Books wanted:- - - - - 242

Books mended:- - - - - 2

Incoming publications: Periodicals, 36; pamphlets, 28; books, 14; maps, 3.

GENERAL OFFICE WORK

Library:

Sorting accessions, checking and arranging shelves, moving

library:-	- - - - -	1 day
Classifying and cataloging:-	- - - - -	14 $\frac{1}{2}$ days
Revising cards, mending, marking books:-	- - - - -	3 $\frac{1}{4}$ days
Correspondence:-	- - - - -	$\frac{1}{4}$ day
Book lists, bibliography, and research:-	- - - - -	1 $\frac{1}{2}$ days
Reports and filing cards:-	- - - - -	1 $\frac{1}{4}$ days
Office filing:-	- - - - -	$\frac{1}{4}$ day

RESEARCH AND EDUCATION

Bird banding records:-	- - - - -	$\frac{1}{2}$ day
Annual report:-	- - - - -	$\frac{1}{2}$ day

Total:- - - - - -23 days

The above distribution of work covers the period June 29 through July 25.

REPORTS

Junior Naturalist Matt N. Dodge accomplished the compilation of the annual report to the Director concerning the activities of the Southwestern Monuments during the fiscal year 1938. An innovation this year was the inclusion of photographs, pertinent to major projects accomplished, in five copies of the report. The activities of the Mobile Unit were stressed, and photographs were also shown of the White Sands museum building, and some of the installations at the museum at Bandelier National Monument.

PUBLICITY

When it was learned that the San Diego Worlds Fair Montezuma Castle

BRANCH OF EDUCATION (CONT.)

diorama was available to the Southwestern Monuments office, efforts were begun to place this diorama where it will be of use in promoting visitor interest in Montezuma Castle National Monument. It is expected that this diorama will be placed on exhibition at Chamber of Commerce offices either in Flagstaff or Prescott, Arizona.

OFFICE REARRANGED

With the arrival of additional library cases, the naturalist offices were rearranged and the library put in shape. There is now sufficient library shelf space for a year, or possibly two.

An inventory was also made of all educational equipment throughout the monuments. Summaries were in the process of preparation at the end of the month.

MUSEUM PREPARATION AND CATALOGING

A proposal to the Santa Fe Indian School was made concerning the possible preparation of exhibit material for Bandelier National Monument by that institution. The reaction of the school to the proposition was not learned by the end of the month.

Arrangements were made to obtain 16 additional case fronts for the Bandelier Museum.

Further steps were taken in the program of obtaining Merriam Turkeys for the turkey diorama at the Bandelier museum. It now appears that we shall be able to acquire two three-quarter grown poults, but acquisition of an adult hen turkey must wait until the hunting season.

Steps were also taken to establish a method by which bird and mammal bones recovered in excavations on the monuments can be identified by an established authority.

A memorandum was prepared for the Superintendent, who forwarded it to the Director of the National Park Service, concerning the possible acquisition of the sculpture, "Arrowed Death", by Sculptor John Terkin of Santa Fe, New Mexico. Inasmuch as this sculpture was inspired by Bandelier's "Delight Makers" and deals so directly with the monument, it is hoped that by some method the sculpture can be acquired for the Bandelier National Monument.

Junior Archeologist Charlie Steen spent six days on the catalog of the Casa Grande collections and finally put this catalog in workable shape.

At the end of the month, Steen was at Tumacacori aiding Custodian Caywood with the glazing of the case fronts and other necessary

BRANCH OF EDUCATION (CONT.)

installation work.

MUSEUM PLANNING

More museum planning was accomplished during the month of July than has been done for several years. This exceedingly important work has been postponed by press of deadline projects, and it is only now that the naturalist division is commencing to make forward progress rather than merely maintaining the status quo.

The White Sands museum plan was finished at the end of the month, except for mimeographing. All plates were drawn and mimeographed, but typewritten data still waited in the over-worked stenographic department. The same is true of the revised plan for Bandelier museum cases 21 through 25. The completion of these finished up the working plans for Bandelier museum. Inasmuch as a general plan has already been approved by the Director, no more planning need be done for Bandelier until the preliminary installation has been in use for a while, and visitor reaction to it has been checked.

The White Sands plan, however, requires approval by the Director before any preparation can be done.

ACCESSIONS FOR JUNE

One tripod for 5 x 7 view camera; one 5 x 7 view camera, Eastman No. 2 B, in fiber carrying case; two extra lens boards; two extra flanges; twelve 5 x 7 Eastman cut-film holders to fit the above camera. The triple convertible protar lens, cable releases, and filters are still to be delivered.

Seventy-two negatives and 144 prints were processed by the Western Museum Laboratories for the Branch of Education during the month.

Two 2-compartment bird traps, five hundred field labels for natural history collecting, twenty-five steel book case sections, four tops, five bases, two 6-drawer 3 x 5 steel filing cabinets, and one 6-drawer 5 x 8 steel filing cabinet.

CASA GRANDE SIDE CAMP EDUCATIONAL PROGRAM

The usual classes were held: Photography, shorthand, conversational Spanish, conservation, typing, building construction, and auto mechanics.

Playing of softball was resumed after one night's play was missed. The team is making a creditable showing in the Coolidge Commercial League.

RUINS STABILIZATION

BRANCH OF EDUCATION (CONT.)

An inspection party composed of Assistant Superintendent Miller, Engineer J. H. Tovrea, Regional Landscape Architect Charles Richey, and Park Naturalist King looked over the work which has been done by the Mobile Unit at Chaco Canyon National Monument. The general accomplishment of the Unit was approved, and Foreman Gordon Vivian complimented on his work. Several suggestions were made concerning minor improvements, and the work was layed out for the next few months. The inspection party, with the exception of Mr. Tovrea, also visited Aztec Ruins National Monument to look over work which will be done there by the Mobile Unit in the near future. Plans were discussed and started for the improvement of appearance of the two kivas in the plaza, for re-roofing several original rooms in the ruin, and for plaza drainage.

NATURAL HISTORY

Bird banding schedules for 1938 were filled out and mailed to the Biological Survey in Washington. The annual report for bird banding will appear in a future supplement to the Monthly Report.

Regional Wildlife Technician McDougall reported adversely on the proposal of stocking with beaver the upper part of Frijoles Canyon in Bandelier National Monument, due to the lack of suitable food plants.

SOUTHWESTERN MONUMENTS ASSOCIATION

Copy for the first booklet, which will be a guide to the Southwestern Monuments, was completed and sent to the field for criticisms and checking. At the end of the month all copy had been returned to headquarters except that for El Morro and Tumacacori National Monuments. Returned copy has been revised and placed in readiness for final typing, which will be done on non-Government time. The booklet will be placed in readiness for mailing to the printer.

Approval of the Southwestern Monuments Association was made by Secretary of the Interior Ickes on July 22.

*****SWM*****

BRANCH OF ACCOUNTING

By Parke W. Soule, chief clerk,
Coolidge, Arizona.

Vouchers prepared during the month, regular appropriations,	99	
Vouchers prepared during the month, CCC	<u>68</u>	167
Purchase orders issued, regular appropriations, Hdqrs.,	60	
Purchase orders issued, CCC,	<u>101</u>	161
Allotment ledger sheets transmitted to Washington,	445	

BRANCH OF ACCOUNTING (CONT.)

Expenditures:	<u>Total for Month</u>	<u>To date</u>
1491000 National Park Service, 1939	6,308.24	6,308.24
148/91000 National Park Service, 1938-39	201.64	201.64
Civilian Conservation Corps	5,939.13	5,939.13

OFFICIAL MAIL COUNT FOR JULY, 1938.

Incoming:-	- - - - -	-3,030
Outgoing:-	- - - - -	-3,911
Total Official Postal Mail-	- - - - -	-6,941

Official Telegrams:	
Incoming:-	- - - - - 36
Outgoing:-	- - - - - 26
Total Official Telegrams-	- - - - - 62

GRAND TOTAL OFFICIAL MAIL - - - - - -7,003

Personal incoming mail - - - - - -1,366

GRAND TOTAL MAIL HANDLED-- - - - - -8,369

*****SWM*****

VISITOR STATISTICS FOR JULY

By The Boss

Our closest estimates for the month of July give us 42,282 visitors to the Southwestern Monuments; considerably more than last year's 28,178. Part of the large increase is added at White Sands and Capulin. Smaller increases are shown at Aztec, Bandelier, Casa Grande, El Morro, Gran Quivira, Natural Bridges, Pipe Spring, Sunset Crater, Walnut Canyon, and Wupatki. The other monuments show small losses of 100 to 200 and on down to less than 50.

Of the 42,282 visitors, about 30,050 were unattended, principally because they went to monuments where we have not yet been able to place men to care for them. Some of them were at one man posts when the man was off duty or away on business.

On the remaining 12,000 visitors, we made 17,359 contacts, each contact consisting of a field trip or a museum lecture. We took 10,252 persons on 1,952 field trips, the average party being 5.2 persons and being out 52.4 minutes. We gave 1,388 museum talks to 8,031 persons, the average party being 5.7 persons and the average time being 21.9 minutes.

We have two interesting "Picture talks" under experiment; one at Canyon de Chelly and one at El Morro. We class them under Museum Talks

VISITOR STATISTICS FOR JULY, 1938 SOUTHWESTERN MONUMENTS

MONUMENT	Employees		FIELD TRIPS				MUSEUM TALKS				Unattended	Total Informa- tional Contact	Total Travel
	Per.	Temp.	No.	Att'd.	Time	Av. Att'd.	Av. Time	No.	Att'd.	Time	Av. Att'd.	Av. Time	
Arches	1	--	19	161	3631	8.4	191.1	--	--	--	--	--	25
Aztec	2	--	255	2112	9725	8.2	38.1	251	2113	6385	8.3	25.4	103
Bandelier	2	5	173	1605	14540	9.2	85.7	105	658	1905	6.2	18.1	702
Canyon de Chelly	1	2	50	193	5800	3.8	116.0	46	174	1200	3.7	26.3	30
Capulin Mountain	1	--	--	--	--	--	--	--	--	--	--	--	7,500
Casa Grande	2	3	237	1485	9279	6.2	39.1	184	1261	4382	6.8	23.8	278
Chaco Canyon	1	1	103	368	6770	3.5	65.7	100	363	2397	3.6	23.9	379
Chiricahua	1	4	118	572	5935	4.7	50.2	--	--	--	--	--	471
El Morro	1	--	93	447	6530	4.8	70.4	24	98	2470	4.1	102.9	141
Gila Cliff	--	--	--	--	--	--	--	--	--	--	--	--	30
Gran Quivira	1	--	76	357	1368	4.6	38.0	--	--	--	--	--	--
Hovenweep	--	1	5	15	150	3.0	30.0	--	--	--	--	--	--
Montezuma Castle	2	--	307	894	13248	2.58	43.1	232	766	3626	3.3	15.6	375
Natural Bridges	1	--	30	188	1800	6.1	60.0	--	--	--	--	--	13
Navaajo	1	--	26	65	8465	2.5	325.0	--	--	--	--	--	7
Organ Pipe	--	--	--	--	--	--	--	--	--	--	--	--	300
Pipe Spring	1	--	23	119	849	5.4	38.5	--	--	--	--	--	79
Rainbow Bridge	--	--	--	--	--	--	--	--	--	--	--	--	35
Saguaro	--	--	--	--	--	--	--	--	--	--	--	--	300
Sunset Crater	--	--	--	--	--	--	--	--	--	--	--	--	1287
Tonto	--	1	65	206	2640	3.5	41.9	91	315	1720	3.5	18.9	26
Tumacacori	2	--	203	801	6115	3.9	30.1	--	--	--	--	--	115
Walnut Canyon	1	--	118	479	2105	4.0	17.8	355	1283	6415	3.6	18.0	795
White Sands	2	--	--	--	--	--	--	--	--	--	--	--	16830
Wupatki	1	--	54	195	2995	3.5	55.5	--	--	--	--	--	217
Yucca House	--	--	--	--	--	--	--	--	--	--	--	--	12
TOTAL	24	17	1952	10252	102285	5.2	52.4	1388	8031	30500	5.7	21.9	30,050
Last month	25	16	1965	9267	92680	4.7	47.1	1226	5546	27015	4.5	22.0	17,739

VISITOR STATISTICS (CONT.)

because they are, in effect, a showing of exhibits inside a room. We are surprised at Mr. Budlong's showing of an average of 102 minutes on 24 such talks, which is much longer than he can hold his field parties over at the actual inscriptions themselves; the average time there being 70.4 minutes.

*****SWM*****

CASA GRANDE VISITOR RECORDS

By The Boss

I don't know why the average trip time of the guides at Casa Grande should be up in March, down in April, up in May, down in June, and up in July, do you? Not only does the total trip time fluctuate regularly this way, but when you separate it into the field-trip time and the museum-trip time, you get the regular fluctuation in each of them.

Last month I very cheerfully accounted for a "down" period by saying: "In 110 degree weather we just can't expect the visitor to walk and stand around as long as when it is pleasant, so we can look for a drop in his staying power." That sounded as if I knew all about it and made pretty good reading, just like the big shots who study visitors write. The trouble is that July has been as hot if not hotter than June, yet the average visitor remained with us several minutes longer than he did in June. Explain that one if you can!

At last Coyle has overcome Rodgers; less than a minute in the museum and more than a minute in the field. He set out to do that last March, but if you think it is easy to add a few minutes to your average time when you have once struck your pace, you are very mistaken.

Coyle and Holt worked 23 days each. Coyle had the greatest number of parties, 70 in the ruins and 55 in the museum, giving them a total time of 2,684 minutes in the ruins and 1,314 in the museum. Coyle handled the greatest number of visitors in the ruins, 474. Rodgers handled the greatest number in the museum, 381.

Of the past six months, July shows the least number of days worked, 90 man days, as against 102 in February; the least number of parties in the ruins, 237, as against 462 in February; the least number of parties in the museum, 184, as against 338 in February. The number of visitors in both the ruins and the museum is slightly higher than last month.

The figures all show that we are in our dull season at Casa Grande and August or September may show the beginning of the upturn toward the winter season.

CASA GRANDE VISITOR RECORDS (CONT.)

AVERAGE TRIP TIME

	AVERAGE TRIP TIME		RUI NS			MUSEUM			TOTAL	
	JULY		JUNE	MAY	: JULY	JUNE	MAY	: JULY	JUNE	MAY
Rodgers-----	36.6		34.2	36.5	: 23.2	20.5	24.5	: 59.8	54.7	61.0
Coyle-----	38.3		32.2	36.0	: 23.9	21.6	24.7	: 62.2	53.8	60.7
Holt-----	35.0		31.8	34.1	: 20.3	20.1	19.2	: 55.3	51.9	53.3
Egermayer---	51.1		51.7	44.8	: 28.7	25.6	25.0	: 79.8	77.3	69.8
Bicknell----	51.0		18.0	40.9	: 31.8	39.0	33.2	: 82.8	57.0	74.1
Average---	39.1		35.7	36.8	: 23.8	21.6	23.1	: 67.8	57.3	59.9

	Days	No. Parties		Minutes		No. Visitors		Half trips	
	Worked	Ruins	Museum	Ru.	Mu.	Ru.	Mu.	per	day
Rodgers---	19	59	43	2159	907	391	381		5.3
Coyle-----	23	70	55	2684	1314	479	363		5.4
Holt-----	23	67	49	2342	996	401	280		5.0
Egermayer-	21	40	33	2043	998	209	211		3.4
Bicknell--	4	1	4	51	127	5	26		
TOTALS--	90	237	184	9279	4382	1485	1261		4.6
June----	94	256	207	9154	4486	1404	1171		4.9
May-----	100	319	232	11757	5353	2232	1983		5.5
April----	113	357	242	12638	5201	3168	2716		5.3
March----	94	335	199	12159	4202	2995	2330		5.6
February	102	462	338	15573	6826	3953	3004		7.8

*****SWM*****

PERSONNEL NOTES

By the Office Force.

Gilbert Philp is the new temporary ranger at Chiricahua, having entered on duty July 1. He seems to be taking hold in good style and the report is that he and Jane like it down there very much. Gil. is an artist at preparing and mounting skins, and we hope to add to the museum collections while he is at Chiricahua.

Frank Morales has gone from headquarters up to Camp NM-5-A during the month where he will keep them ship-shape in a clerical way. We miss his smiling face and pleasant manner.

Laurence Mungerro is the newest recruit at the CCC desk in the headquarters office. He has had experience in other camps and takes hold like an old hand.

We all enjoyed very much the little visit of Mr. Demaray, of the Washington Office. Hugh and the Boss met him in Phoenix and took him to Casa Grande, Saguaro, and Tumacacori National Monuments and on into Nogales. Here Tov. picked him up for the journey to Tombstone, Chiricahua, and thence north to Globe while Hugh and the Boss returned to headquarters to meet a representative of the Budget Bureau. Another

PERSONNEL NOTES (CONT.)

exchange at Globe put Hugh with Mr. Demaray to visit Tonto, Montezuma Castle, Tuzigoot, Walnut, Sunset, and Wupatki. As this is written, we are hoping he will cut in again on our circuit in a few days and visit El Morro, Bandelier, Gran Quivira, and White Sands before he goes back to Washington.

J. H. Tovrea and Polly were up in the Pines at Flagstaff part of the month on CCC matters and incidentally enjoyed the fine weather at that 7,000 foot elevation. Tov. has had a lot of work to do on the proposed water supply for Walnut Canyon and the entrance road lay-out. At this writing he is again in the field over at Kingman, but Polly and the pup are at home.

Mr. and Mrs. Charles Carter of the Regional Office were welcome visitors on the 23rd. Mr. Carter will have his office with us a little later on when some of his field work is cared for, and they will live in Coolidge. Mrs. Carter, known to many of us as Patsey Griffin, spent several years in Chaco Canyon where Mr. Griffin, her father, was custodian.

Parke Soule and his boys in the office had a grand time this month closing out the old year and opening up the new. At this writing they are beginning to come out from under, but there is still plenty to do. Jean Soule, by the way, cut the stencils for the Supplement this month, donating the work as a matter of getting practice and helping us out.

Charlie Steen is down at Tumacacori helping with the installation of the museum exhibits and likely to be there another two or three weeks. Mary remained at home in Coolidge.

Dale and Hortensia King have the latest air-cooled quarters on the headquarters lot. As this is written, we are starting to put a cooler in the three educational rooms which are in the same building, the old Bob Rose quarters.

It won't be long until Eugene Stonehocker moves from his old shop out to the new garage which has been built by enrollees of the side camp from Chiricahua. He and Teddy Savage will enjoy that fine, large building with its convenient benches and overhead crane.

Our utility man, Mr. J. L. L. Baehr, returned from his vacation just in time to get bitten by a centipede. The bite was on the foot and the resulting swelling has kept Teddy laid up for the past week or ten days. And, of course, it would be just this time that Davey Jones would clip and send in a scientific article to the effect that the centipede and scorpion are not poisonous. Dale King was stung by a scorpion a few weeks ago and both he and Teddy Baehr think centipedes and scorpions have something more irritating than goose-grease in their bite or sting.

There is some jubilation around the office today because the "ruins"

PERSONNEL NOTES (CONT.)

boys beat the "CCC" boys six to three last night in a soft ball game.

Luis Gastellum spent several days of the past month up at NM-5-A, in the pines, helping with the inventory and getting the store house started. He enjoyed the cool weather.

Harry Reed is doing full time at Arches this month and, he being an expert photographer, we sent him about 300 feet of color film to add to our files his very lovely and interesting monument.

Carroll Miller took a little time off during the month and Alfred Peterson came down from Hovenweep and Yucca House to help Jimmie Brewer run Aztec. Traffic is heavy at Aztec this summer.

Alfred and Bernice Peterson report the plague of gnats as having lessened somewhat but the wind and flies continue to make camp life one thing after another.

Betty Budlong reports, in a recent letter, that she received several books from that appeal we sent out last month for her El Morro library, but I am sure she has some shelf room left if any of you haven't sent her at least one book. By the way, the head of a Denver museum read our report and promptly mailed her a book. Bud came in to headquarters during the month and for several hours we drilled wells and built houses all over that reservation. We have a job ahead of us to develop that monument without over-developing it.

Don and Ruth Eggermayer had a visit of several days this month with Father and Mother Eggermayer who were making a trip through the Southwest.

A letter from Hap Dodge says she and the kids are having a fine time up at the old home place in Colorado. While she doesn't really admit it, I think she is a little homesick for southern Arizona.

We want to welcome Mrs. Ed Alberts, of Montezuma Castle, to our force of Honorary Rangers Without Pay and hope she likes us and the outfit which she has now joined.

Al Bicknell has been as busy as the proverbial bee this month only he has done his flitting hither and thither and yon on a big ten wheeler with anything up to nine tons aboard. He has been on special detail supervising the delivery of the heavy stuff to the new camp at Flagstaff.

A note from Bina Bicknell says she is getting along all right over on the coast but I think she is getting ready to come home.

We have some new guide badges for the CCC boys. Holt, Coyle and Rodgers look fine in them and have been accused of sleeping with them on.

PERSONNEL NOTES (CONT.)

Many of us who knew him felt a personal loss when we heard of the death of Charles Hutchins at a sanitarium in Colorado Springs the first week of July. He worked for our Service at Carlsbad Caverns until his health broke. We agreed to take him into the Southwestern Monuments and put him on open air duty, but when he went before the medical examiners they ordered him to the hospital. For over two years he has been fighting a great fight as gamely as any man could, but the disease was too well entrenched before it was discovered and he had to lose.

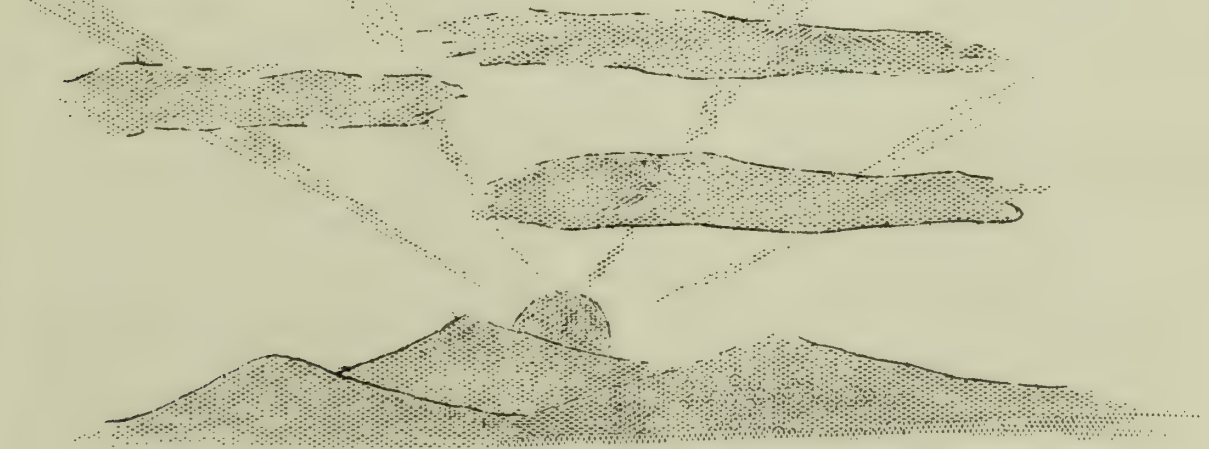
Mother Pinkley celebrated her seventy-eighth birthday on July 30. The neighbors from Coolidge dropped in on the 19th with the makings of a big dinner. Chris and Joan engineered another big dinner on the 30th. and KOY of Phoenix sent greetings on its morning program, so it was a birthday long to be remembered. Mother Pinkley lost her first tooth this last year, so old age must be coming on.

"Doc" Gipe's many friends will be glad to know he is up and around after his recent operation and, although still a little weak on his pins, is coming back to normal in good shape.

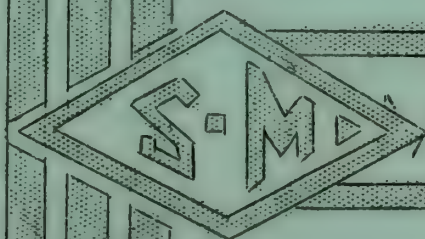
Ira Goodwin had a foot operation for an ingrown nail for which he did not take time out.

Hub. and Ruby Chase were welcome visitors at Headquarters from the Bandelier CCC camp the early part of the month. They stood the heat of the low country much better than they had expected and we certainly enjoyed having them with us for a few days.

*****SWM*****

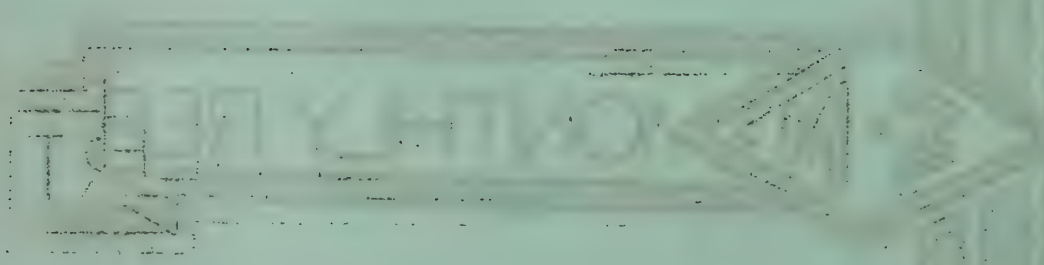


THE Supplement



MONTHLY REPORT

2nd Supplement



SUPPLEMENTAL OBSERVATIONS

(With the beginning of a new fiscal year and with an ever increasing volume of nature observation reports coming in from the field, it has been decided to group all of this material each month and run it in the Supplement as a separate department. This constitutes the first appearance of the new "Supplemental Observations". We shall look forward to your comments and suggestions. - Ed.)

TO A NIGHT-BLOOMING CEREUS

This is your night!
What magic word has swept the land
Of mesquite, cholla, salt-bush, sand?
What voice or spark, unknown to us,
Has waked each sleeping Cereus?
This is your night!
No sooner has the red sun dropped
Behind the mountains, granite topped,
Than on the desert near and far
Each many-pointed, perfumed star
Unfolds and spreads its petals white.
You've heard the call; this is your night!

And as the moon rides calm and high,
Unmasked by cloud, across the sky,
Your earth stars open, one by one,
In bride-like glory 'wait the sun;
For when the night has given o'er
And day takes up the race once more,
Each gray-green plant so plain, severe
Will fold its flowers for the year.
But while the hours of night prevail
You rule, oh blossoms fragrant, pale;
You rule with glorious, fragile night,
It is your right! This is your night!

N.N.D.

During the last few days of May, guides and the ranger had considerable trouble keeping the young rough-winged swallows (mentioned in the May report) in their nest. From May 27 until June 2, two or three would be found each morning out of the nest in the center room and on the floor of the east room. One day the same three birds were replaced five times between 8:00 A.M. and 3:00 P.M. and were again out of the nest the following morning. In early June, however, the nest was deserted, as was that of the Say Phoebe which was in the east room.

Our family of Horned Owls in the roof above the ruin seem to be suffering some from the heat. During much of June they have either absented themselves from the building for a day or two at a time, or have been seen perched down on the walls of the Casa Grande. On at least two occasions they descended to the floor of the center room, apparently to escape the heat immediately under the roof.

The Night-blooming Cereus, Peniocereus greggii, inside the patio west of the Headquarters building, produced its first bloom of the year during the evening of June 19. For the benefit of those interested, a complete record of the time element of the blossoming is included herewith. The green leaves opened wide at 7:20 P.M. followed by the cream petals which started to unfold at 7:34. These petals had opened to a cup shape by 7:54 and by 8:05 the lower petals had begun to lie out flat. The flower was completely opened by 8:25 P.M., and stayed open approximately 12 hours. The first sign of fading occurred at 8:40 A.M. when some of the lower cream-colored petals became slightly discolored and began to droop. By 10:00 A.M. the upper petals had folded up into a cup shape, while the lower ones were completely discolored and wilted. The entire flower closed at 10:40 and by noon was completely wilted.

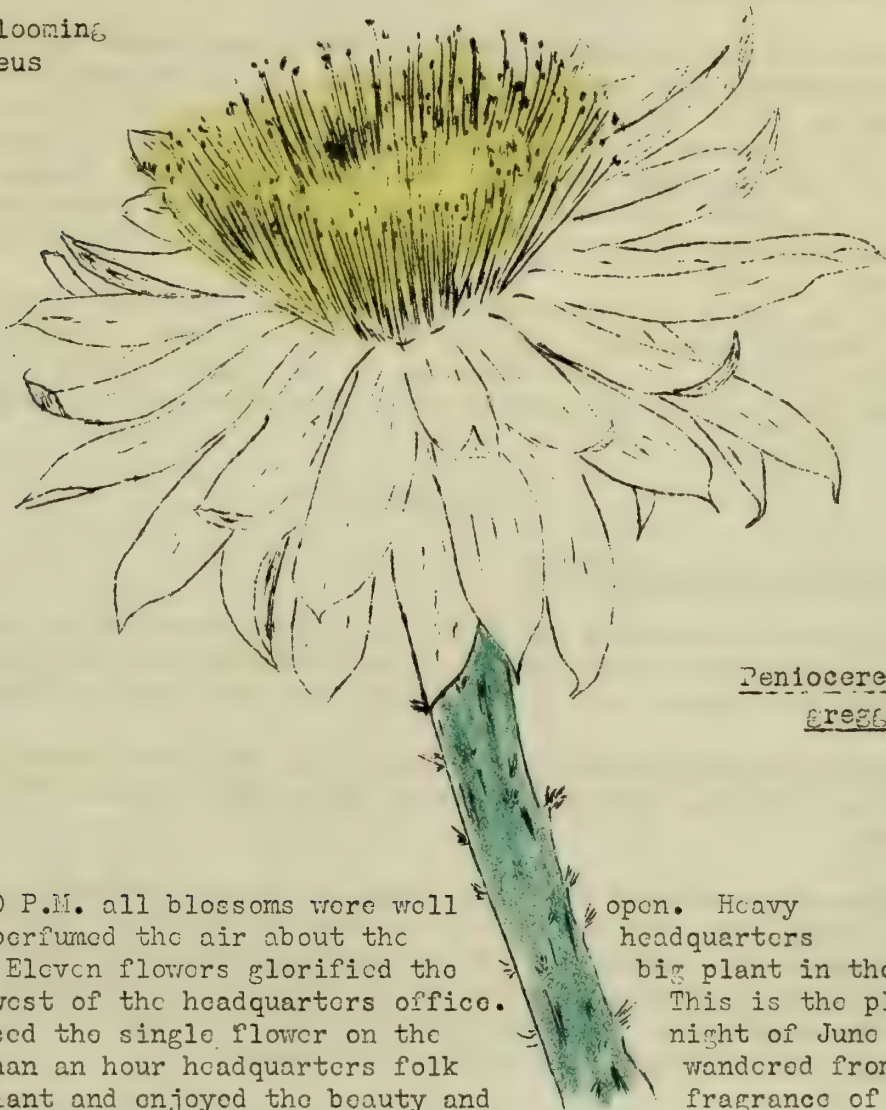
*****SWI*****

MORE CEREUS OBSERVATIONS

A grand show enjoyed by the Casa Grande and Headquarters personnel and "Doc" and Mrs. Gipe from Coolidge was staged on the evening of July 5 when the Night-blooming Cereus plants around the residential and administration areas flowered. Seven of the eight plants put out a total of 28 blossoms. The remaining plant, directly beneath the north window of the Casa Grande Custodian's office, apparently is not going to blossom this season.

The first flower to open was on the plant at the north window of the headquarters office. It began to unfold at 7:00 P.M., about twenty minutes before sundown. Other plants followed in short order,

Night-blooming
Cereus



Peniocereus
greggii

and by 8:00 P.M. all blossoms were well open. Heavy fragrance perfumed the air about the headquarters building. Eleven flowers glorified the big plant in the courtyard west of the headquarters office. This is the plant that produced the single flower on the night of June 19. For more than an hour headquarters folk wandered from plant to plant and enjoyed the beauty and fragrance of the fragile white flowers, while naturalists Steen and Dodge, aided by "Goodie", set up a complicated string of wires and light bulbs and made photographs. In the bright lights, Goodie's white shirt attracted a horde of insects that crawled into his ears and down his neck.

In addition to the many expressions of delight over the beauty and fragrance of the blossoms, the following comments were heard:

"Isn't it interesting that such a drab, inconspicuous plant should produce such large, spectacular and fragrant flowers."

"Why should seven plants ranging in size and age with such a wide difference of location, exposure, and moisture conditions all blossom on the same night?"

"Why did the plant west of the office put out one flower on

MORE CEREUS OBSERVATIONS (CONT)

June 19 and save all the rest for the fifth of July?"

Records of the blossoming dates of the Cereus plants at Casa Grande National Monument for the past three years are as follows:

July 18, 1935: The plant in the patio west of the office bloomed--four large blossoms. They were not fully open at 10:00 P.M. and were closed at 7:30 the next morning. The night was rainy. D.S.K.

July 25, 1935: The small specimen 30 feet south of the S.E. residence bloomed. Blossom fully open at 9:30 P.M. Night warm and clear. D.S.K.

July 15, 1936: Six blossoms opened during the night which was hot and windy. Apparently last of this year's crop. J.D.#.

July 6, 1937: The first blossoms of the season opened on the plant to the right of the path to the Casa Grande just outside the gate. J.D.E.

*****SWM*****

NATURE REPORTS FROM BANDELIER

Among the cottonwoods and boxelders of Frijoles Canyon, nesting birds were numerous during June. A nest containing four young robins, estimated to be about two or three days old, was found on June 7.

Two Long-crested Jays, just learning to fly, were caught and banded on June 11. Another family of these jays was observed on June 12.

Chipmunks became so numerous about the Sholly residence early in the month that they constituted a domestic problem. With the aid of one of the two compartment bird traps, George captured fifteen which he transported far up the canyon and released. However, the population about his residence did not appear to be much decreased and a second deportation was planned.

A five inch Eastern Brook Trout, returned to the waters of Frijoles Creek by a fisherman, was observed struggling in the grasp of a 15 inch garter snake. The snake held the fish just behind the pectoral fins, evidently squeezing as hard as possible. The struggling fish tossed the snake about but the reptile held on relentlessly, even when lifted out of the stream by the observer. Attempting to escape with its prey, the snake moved backward, feeling about for a path with the tip of its tail and throwing the forward loop of its body with the fish in its mouth back several inches, and then straightening out tail first. Apparently unable to find a safe retreat, it released its hold upon the fish and glided away. The fish, returned to the stream, floated off belly up.

NATURE REPORTS FROM BANDELIER (CONT)

A medium-sized bear, rather ratty in appearance, was seen overturning rocks, probably in search of insects, on a yellow-pine flat along Frijoles Creek on June 12. It was a brown phase of the black bear.

Numerous cougar tracks were noted in the soft mud of Frijoles Creek on June 12. The tracks were observed in several places between the west boundary of the monument and the Natural Bridge.

*****SWM*****

CHACO FLORA

By Homer F. Hastings

The growth of vegetation in the monument was retarded by the lack of moisture and the dry winds which prevailed until the last few days in June. Brown patches now appear where an unusually heavy growth of wild mustard has gone to seed. The regular crop of Russian thistles is just beginning to come up. Primroses, sand puffs, pentstemon, and phacelia are just about gone, while four o'clock and jimson weed are beginning to bloom. The fruit of the yucca (goose apples as they are sometimes called) are full formed and appear to be larger than usual. One which we measured had a diameter of one and one-half inches and a length of three inches.

In addition to the plants reported last month,* Lythrum pallidum (Wolf Berry) and Phacelia corrulata have been collected and identified. Lycium has been noted at several places in the monument. Some of it was started by the Soil Conservation Service and some of it has resulted from reseeding by native growth.

Numerous cottonwood seedlings, which were started by the S.C.S., are growing in the washes and along the dikes and, if they withstand the onslaughts of drouth and deluge, they will soon be doing their part to keep this monument from being washed away.

*****SWM*****

*(Homer's plant list was lost somewhere in the shuffle and, if another copy can be obtained, will be run in next month's Observations. Ed.)

*****SWM*****

	<u>New</u>	<u>Repeat</u>	<u>Return</u>
Phoebe, Say.....	3	0	0
Quail, Scaled.....	2	6	0
Red Wing, Nevada.....	1	0	0
Shrike, Northern.....	1	1	0
Sparrow, English.....	2	0	0
Sparrow, Desert Black-Throated.....	1	0	0
Sparrow, Gambel.....	1	0	0
Towhee, Canyon.....	7	9	1
	<u>20</u>	<u>13</u>	<u>1</u>

The towhee return was banded at Chaco Canyon by T. C. Miller on April 27, 1938. On June 13 we had the pleasure of meeting Natt N. Dodge, junior park naturalist. He explained the banding reports in detail and cleared up several difficulties. His help is certainly appreciated.

We made several trips around in the canyon this month looking for young owls and crows. We found several last year nests, but no nestlings. The Gambel Sparrows have gone. Before we began trapping birds, there were hundreds here on the monument. The Nevada Red Wing we banded is the only one we have seen in the Canyon. He stayed around all day, looking quite lonesome, and watched me bait the traps. Finally his curiosity got the better of him. The mocking birds wake us every morning with their songs. There are several pairs on the monument and they sing early and late. So far we have been unable to trap them so we've decided to change the bait in our traps.

In our bird manual we were instructed to kill all shrikes that we found destructive. The only one we caught was such a spunky fellow we lost our nerve and turned him loose. Two English sparrows met their doom before we could get them out of the trap. We have seen several young shrikes being fed by their parents but haven't located any nests. We watched a pair of Rock Wrens building their nest in Pueblo Bonito. Before they had finished, repair work of the ruins was started and the wrens deserted their nest. No doubt they thought the neighborhood too noisy.

It was quite a funny sight the day Mac and Homer banded the Say Phoebes for me. We soon discovered that we had waited too long. They were ready to fly and, when we tried to catch them, they scattered in all directions. Mac put his hat over one and got his hand on another; Homer followed one thru two rooms and caught him. One we lost entirely. We've been wondering what sort of bait to use to trap a say Phoebe. They are quite numerous in Pueblo Bonito and along the base of Threatening Rock.

*****SWM*****

NOTES FROM CANYON DE CHELLY

On returning from a trip to the monuments on June 23, the custodian encountered a skunk ambling across the sand on the floor of the Canyon. The beautifully striped animal was apparently not alarmed at the approach of the car and unhurriedly made his way into the willows at the side of the wash. This is believed to be the first skunk record from this monument.

While on a trip to Mummy Cave, Sally and Bill Lippincott discovered two infant rats (or mice) which had been set upon by a horde of ants. Removing the ants with some difficulty, the rescuers looked about without success for the nest from which the youngsters had been driven. Sally decided to adopt the refugees and has made a home for them with cotton batting in a hot-water-bottle heated box. She feeds them evaporated milk regularly with a medicine dropper which they have come to accept eagerly. In honor of the custodian, they have been named John and Will respectively until such time as they die or indicate that the name or names be inappropriate.

*****SWM*****

WILDLIFE AT EL MORRO

By Robert R. Budlong

The young Golden Eagle seems about ready to leave the nest and a daily inspection is made to see if the youngster has taken his first venture from home. The young owls mentioned in the May report are doing well and visitors find them of considerable interest. However, as they grow up it was either a case of moving them outside in order to have room for the custodian and HCWP, or of our moving. The owls now dwell outside.

One dark night during the month something was heard to fall from the cliff with a dull thud and an investigation next morning resulted in the finding of a porcupine that was responsible. Porky was buried, but quills remaining where he fell interest the visitors, many of whom have never seen a porcupine.

During the month the den of a wild domestic cat was found and three kittens properly disposed of, though two more are thought to be roaming the monument, one of them being the mother cat. What little wildlife we have is growing very tame--the rabbits and doves get in the way on the trails and have to be coaxed to move to one side in order that visitors may pass.

*****SWM*****

Twelve new plants were pressed for herbarium specimens. Thirteen mounted herbarium specimens were received back from Western Museum Laboratories. They certainly do a swell job of it.

On May 27 we saw a collared lizzard near the extreme southeastern boundary of the monument. These lizards are rare in the monument. They are quite spectacular and are noted for their cannibalistic tendencies. On June 4 the skull of a Black-tailed Rattlesnake (*Crotalus molossus*) was cleaned, and I attempted to mount it. Unfortunately, the party who brought in the skull had damaged it so the exhibit did not work out.

On June 10 I saw bees starting to swarm on a ledge about 40 feet above ground just west of the Castle. They didn't like this location so advanced about three yards down the cliff. Here, at 1:10 P.M., they started a new huddle. By 2:15 the swarm was complete covering an area of rock equal to about three and a half square feet. They were still in this swarm as late as 10:12 A.M. the following day. Then at 2:00 P.M., after this swarm had broken up, a new swarm about the size of a man's head had formed a short distance away. We never found what site the bees selected. A few days later, on June 20, we saw a dense cloud of bees a couple hundred feet east and suppose they were preparing to swarm. We saw them because a strong wind carried them right into the midst of a party of visitors to whom we were talking.

Ed. Alberts saw a large bullsnake on June 11 just in front of the castle. This was the first big one we had seen this summer on the monument. We think it may be one of our big pots of last year. On June 18 Betty saw the first muskrat we have ever seen here on Beaver Creek. She couldn't identify it, but affirmed that it was of a small variety. Visitors are making comments about how tame our Ground Gray Squirrels are becoming. And we notice that the Cotton-tail rabbits are becoming very tame around our house. We never step out the door before 8:00 A.M. but what we see at least one rabbit near a door step, and frequently they will stand six or eight feet away and unconcernedly nibble grass while keeping an eye on us.

Very few garter snakes have been seen here this year. This morning, June 24, we saw a three foot specimen in the yard.

We received instructions and photographs from Headquarters during the month for the use of demonstration ant nests. We made one out of moulding plaster and some old glass on hand at a total cost of about fifty cents.

*****SWI*****

The birds seen on the monument in June were: Arizona Cardinal, Yellow-billed Cuckoo, Mourning Dove, House Finch, Red-shafted Flicker, Ash-throated Flycatcher, Vermilion Flycatcher, Cooper Hawk, Desert Sparrow Hawk, Treganza Blue Heron, Black-chinned Hummingbird, Killdeer, Arkansas Kingbird, Cassin Kingbird, American Morganser, Western Mockingbird, Texas Nighthawk, Arizona Hooded Oriole, Phainopepla, Black Phoebe, Say Phoebe, Gambel Quail, Road Runner, White-rumped Shrike, Desert Black-throated Sparrow, Cliff Swallow, Hopatic Tanager, Western Tanager, Crissal Thrasher, Turkey Vulture, Lucy Warbler, Sonora Yellow Warbler, Cactus Woodpecker, Baird-Bowick Wren, Canyon Wren and House Wren.

The Texas Nighthawks are back again this year. There are about six of them that arrived May 25. I haven't located the Hummingbird's nest this year, but twice I have seen him hovering over the creek, then darting away into the trees west of the tent.

I got all excited on May 31 at seeing a Phainopepla here. They are not supposed to get up to this altitude, according to Bailey, till after the breeding season. I had never seen one before. He was in the top of a Sycamore over the creek, circling out every now and then after an insect and showing his markings very plainly. While I was watching him, I heard a great chattering and Mrs. Flicker arrived at home with some food. I saw at least four little heads craning out. They have probably flown by now, though I haven't seen them, but there is another family of young ones now in a tree west of the museum. In the next tree are some young Cactus Woodpeckers in a nest about half as high up as the one I saw last year--only about 25 feet above the ground.

Poor Mrs. Say Phoebe is getting old and nervous, I'm afraid. After settling over our front door again, as I mentioned in May, she didn't have the courage to remain on her eggs while anyone was around. She made attempts up to about June 5 but since then she's only been back occasionally, perhaps just to rest. Her four eggs are all grayish and spoiled.

The Hopatic Tanager was first seen on June 15 by Norman and has been around ever since. He's not easy to see like his cousin, the Western Tanager, who is conspicuous and proud of it.

I am jealous of Mrs. Caywood for her discovery of a road-runner's nest. I don't seem to be able to see ground nests. I've hunted and hunted and still haven't found even a quail nest, and we have at least 15 families of Quail.

The Vermilion Flycatcher was at last seen on June 1. I've been awaiting his arrival for two months.

BIRDS AT MONTEZUMA CASTLE (CONT)

On June 15 I watched a killdeer go through the queerest antics. I was swimming in the creek. I swam to about ten feet from where he was standing on the shore before he saw me. Then, instead of flying, he began to chatter his bill as he let out a high soft whistle and, apparently shivering all over, he turned his back to me, stopped a few paces away, then settled in a hollow between some rocks. After staying there about a minute in silence, he started his chatter again, got up on very shaky logs and moved off a little farther. He repeated the whole thing several times only moving about three feet between hollows. When he thought he was at a safe distance, he let out his characteristic scream and flew on down stream a little way.

On June 22 Norman called me out to see the Cuckoo which we have heard for about three weeks but haven't seen. That same day Ed saw a family of quail--about a dozen little ones so tiny that they stumbled every now and then. They were about two or three inches long.

There is a young mockingbird on the monument and several young mourning doves. The kingbird babies in the nest above the syzygy are about ready to fly now too. The merganser young ones are almost the size of their mother now, and all ten doing nicely.

I haven't seen any baby House Finches, but one family is starting a second brood and I saw another pair courting today. The bird I've been calling Rocky Mt. Orange-crowned Warbler is not one. He lacks the yellowish underparts. He is more like a Lucy Warbler, but still doesn't quite fit in the marking at the eye.

In doing the road work they had to take out a medium-sized "Soaptree" Yucca, which we transplanted into our back yard "garden". I don't know what she gets there, but every morning the female Arizona Hooded Oriole pecks around in and under its leaves while the male talks to himself in a nearby mosquito or greasewood.

*****SWM*****

TONTO TALES

By Roland Richert

This ranger was appropriately initiated into the reputedly wild environs of Tonto on the night of June 6 when he was awakened by a blood-freezing scream emanating from the canyon, possibly 100 yards above the spring. Five or six successive shrieks were heard, and then all was quiet. If we may believe the many reports regarding the scream of a cougar, perhaps the mountain lion that prowls here periodically was making his initial visitation. I have heard the same sound on subsequent occasions but each time it has been at a considerable distance.

TONTO TALES (CONT)

Virtually all flowers have blossomed and are either bearing or have borne fruit. Two notable exceptions are the agave or Century Plant and the Sotol which are now in full bloom.

Birds are very abundant on the monument, especially Gambel Quail. It is a common sight to observe a pair of adults leading a family of from six to 15 chicks in search of food. Other birds noted at random are: Desert Blackthroated Sparrow, Cardinal, oriole, jren, vireo, raven, flycatcher, kingbird, dove, hummingbird, and roadrunner.

*****SWM*****

WILDLIFE AT HOVENWEEP AND YUCCA HOUSE

By Alfred Peterson

Animal life here is interesting. We have seen magpies, doves, larks, owls, flycatchers, a cliff swallow, night hawks, and others. Ground squirrels, large grey squirrels, chipmunks, jackrabbits, and lizards are numerous. One lizard, a near neighbor at Squaro Tower, is brightly colored green and yellow with markings of red, black and brown.

*****SWM*****

WALNUT WILDLIFE

By Paul Beaubien

Water holes in the canyon, left from the overflowing of Lake Mary this spring, have gone dry so there is no water for wild turkeys this summer.

Tracks of a small bear have been seen several times by loggers at work just across the canyon. An old mountain lion has killed several sheep about one mile southwest of the ranger station.

*****SWM*****

BIRD NOTES FROM TUMACACORI

By Gordon Gilbert Philp

Within the limits of the monument, no one bird seems to be especially abundant that is, omitting the species which may, for one reason or another, come in for a short time. For example, the Band-tailed Pigeons were seen in large numbers one morning recently. Except upon one other occasion, I have not seen a single bird of this species upon the grounds. The Phainopepla is perhaps here in greater numbers than any other variety; the Arizona Cardinal and Gila Woodpecker running a close second and third.

Offering a noticeable contrast with Casa Grande is the scarcity of Western Mourning Doves. The Western White-winged fills the gap in this family. However, this last is not common upon the monument--they

prefer the shade and seclusion of the wooded area along the Santa Cruz River. A time or two while walking in the north east corner of the monument, the smallest of the dove tribe has flashed before me. This species, the tiny Mexican Ground Dove, was found nesting within one hundred yards of the east boundary. The nest is situated some four feet from the ground and is typical of this order of birds--a small, almost flat, frail, loosely constructed mass.

The gaudy little Vermilion Flycatcher may be seen at 'most any time of the day and the utterance of the male often heard through the night. I was fortunate enough to see the start of a nest built by this species. While I watched, the male bird took no part in the construction work. The female took parts of three days to complete her task. The afternoon of the third day she was observed sitting upon the nest, apparently laying. On inspecting the clutch of eggs five days later, a fourth and larger egg was very much in evidence. The little flycatchers had been victimized by the parasitical cowbird.

Lucy Warblers are about 'most all the time. A nest of this species was found in a most unusual place, or I should say, the young; for the nest was built by another bird. The woodpeckers, at some time or other, had hollowed out the end of a 1 x 6 beam still used in the roof construction. Here in the old site of a past dweller, this warbler has chosen to raise its young. It is an unkempt, dirty site, not at all like most locations chosen by this bird.

Palmer Thrashers here are the most abundant of the family. Often through the day this bird is heard giving its shrill, spirited whistle. Occasionally a Crissal Thrasher is seen. At close-by Aliso Spring, birds are particularly varied and abundant. Of mentionable interest were the variety of Tyrant flycatchers recorded. Within an hour's time six species were counted: Arizona Crested, Ash-Throated, Olivaceous, Western Wood Pewee, Beardless, and Vermilion. Adding to this the Say Phoebe, among others found on the monument, we have a sizeable list of these birds. There is always a thrill awaiting him who follows Nature; there is always more to see, to learn. I had my first glimpse of the fast-becoming-rare Scaled Quail. A pair were observed in their chosen dry, arid environment, not far from the monument.

The monument is of such small size that the following list of birds observed within its ten acres does not adequately represent the avifauna of Santa Cruz Valley: Crow, Western; Cowbird (probably dwarf); Chat, long-tailed; Cardinal, Arizona; Dove, Mexican Ground; Dove, Western Mourning; Dove, Western White-winged; Flycatcher, Arizona Crested; Flycatcher, Vermilion; Flycatcher, Ash-throated; Finch, House; Flicker, Red-shafted; Hawk, Desert Sparrow; Mockingbird, Western; Nighthawk, Texas; Oriole, Ariz. Hooded; Pigeon, Band-tailed; Pyrrhuloxia, Arizona; Phoebe, Say; Phainopepla; Raven, White-necked (possibly American); Towhee, Canyon; Thrasher; Vulture, Black; Vulture, Turkey; verdin; wren; woodpecker; and Lucy Warbler.

RANDOM PAPERS

ANTHROPOLOGY AND THE MUSEUM

By Katharine Bartlett

(Ed. note: This paper was presented at the Social Science Section, A.A.A.S., Albuquerque, N. M., April 26, 1938)

Perhaps a discussion of museums is out of place on a scientific program, but I do not believe it is for there is hardly a Southwestern anthropologist who is not connected with a museum of some kind-- university, state, national park, or private.

A museum is a place where the finds of anthropology should be interpreted to the public. A museum should be like the conclusion of a scientific book where the results of research are summed up and not, as in the body of the book, where all the evidence is presented. The evidence must be known, of course, and placed where it may be seen by any person who wishes. There are very few museums like this.

Anthropological museums are divided into two groups: those that present anthropology as art; and those that present anthropology as science. The first group exhibits archaeology and ethnology as art, and in that they seem to be much more successful, as museums, than the second group. Only the best and finest objects are exhibited, usually in tastefully chosen settings that enhance their beauty and interest. The scientific museums, on the other hand, tend to show all their material, good and bad alike, poorly arranged and with uninteresting backgrounds.

It is scientific anthropological exhibits for the public that we are particularly concerned with here. Museums of anthropology, one of the oldest classes of museums, have been excessively slow to profit by new museum methods, especially in the United States. In

recent years, art museums, natural history museums, and science and industry museums have outdistanced anthropology and history museums in pleasing and instructive presentation of material. They are employing the most up-to-date methods.

A good museum exhibit of any kind, whether one case or a gallery, should tell a story, or, in other words, present a few definite and clearly expressed ideas, and only a few. It is impossible for a museum visitor to absorb in the short time at his disposal very much information, but if he goes away enriched with a few clearly defined ideas, then he has not wasted his time.

As I was going around in a large eastern museum where there were endless cases full of objects, I noticed an ordinary man and woman. The woman was obviously bored, but her husband was intently studying every case. Finally said she, "Henry, if you stop to look at everything, we'll never get out of here!" This sentiment expresses perfectly the spirit of most archaeology and ethnology exhibits--a multiplicity of objects.

Let us take the Southwest as an example. Of course, it is needless to remark that Southwestern archaeology has made great strides and we now have a sequence of well defined cultural periods, practically all dated. Even a few museums realize this, and they exhibit in sequence the objects of material culture from Basket Maker through Pueblo IV, or Pioneer through Classic Hohokam. Unfortunately, to the general public, these objects all look about the same, except perhaps the pottery which looks different from period to period. Take Pueblo III for example. To a Southwestern archaeologist it immediately brings up ideas like this: "1100 to 1300 A.D.; large Pueblos--Wupatki, Betatakin, Aztec, Pueblo Bonito, Cliff Palace; finely made pottery with great local variation; distribution less extensive than in Pueblo II; kivas and development of religion; beginning of complex social organization; abrupt ending caused by great drought of 1275 to 1299." We forget that the public does not know all that this period designation means to us and consequently any intended time sequence is lost and the exhibit appears flat and lacking in perspective. Dwellings, religious life, social evolution and other intangible evidence, etc. are not there. It is this lack of time perspective that makes archaeological exhibits so dull from the visitor's point of view, yet is the very thing archaeologists are striving to bring out.

I represent the general public in search of knowledge when I look at exhibits of the archaeology of Middle and South America, Europe, Greece, Egypt, and the East, and China. One knows from the literature that a great deal of research has been undertaken, and chronologies and sequences of cultural periods have been established in many parts of the world, but it is practically impossible to find

ANTHROPOLOGY AND THE MUSEUM (CONT)

a museum where such finds are interpreted intelligently, if at all. One of the best examples, is the new National Museum in Copenhagen. Here the prehistory and history of Denmark is set forth from the end of the Old Stone Age through Maglemosian, Kitchen Midden, Neolithic, Bronze, Celtic Iron, Roman Iron, Migration, Viking, German, and Historic Periods to the 19th Century. After looking at this splendid exhibit, one can understand the present day culture of Denmark, even though all labels are in Danish.

Another fine museum which, though devoted only to history, is worth of emulation, is the Haus den Rheinischen Heimat in Cologne. Here the history of the Rhine Valley is excellently treated according to various subjects--the historical and political development of the Rhineland, the Church and Church estates, the Rhenish city and its people, the Rhenish peasantry, and Commerce and Industry.

The third example is the new Hall of the Natural History of Man, at the American Museum of Natural history, which depicts in a very simple but comprehensive manner the physical evolution of man. This exhibit is somewhat like the Deutsches Hygiene Museum in Dresden which is devoted to Human Physiology.

In the museums which are the most interesting and instructive one finds simple, well thought-out exhibits, carefully labeled, extensively amplified with charts, maps, diagrams, and models, used in connection with carefully selected material. In showing a sequence of objects or cultures, it is the differences, and not the likenesses, which are the most significant.

One eastern university museum maintains that it is not faced with the same problems as ordinary public museums, and that it is proper for them to exhibit all their material so that the students can study it. If carefully prepared exhibits, no matter on what minute branch of anthropology, were available, I believe students as well as public would profit by it. Such exhibits should, of course, be augmented with easily available study collections.

In fact, a university museum is an opportunity for any anthropology department. By encouraging advanced students to prepare synoptic exhibits on any phase of the subject, the museum might build up a fine series of exhibits on its research problems. Many good students, who from lack of opportunity will never be able to be field archaeologists, can find positions in the vast number of museums springing up in the country--every city, town, county, and state must have them. Many of these local museums are being run by people who have not the slightest conception of what a good exhibit should be. Certainly a good exhibit would be worth as much as a term paper for a student, and requires as much research. Also a museologist with good anthropological knowledge is better than a jobless anthropologist.

In concluding, I wish to say that as anthropologists we should take the trouble to interpret to the layman what we learn through the dark and devious ways of research. By means of very simple, clear exhibits carefully labeled and augmented with charts and diagrams, the most intricate problems can be successfully "put over", remembering all the while that the differences are more important than the obvious likenesses. We should make an effort to present the anthropology of the Southwest as a prodigested subject in three dimensions rather than as a mass of undigested material that satiates the public mind, and in so doing train our students to prepare such exhibits. We cannot expect a museum visitor--even the most interested--to expend much gray matter upon what he sees, and therefore we must do this thinking for him, in advance.

*****SWM*****

THAT CHACO ROCK AGAIN

By The Boss

There has been some discussion concerning the name of the portion of cliff which threatens to fall on Pueblo Bonito in Chaco Canyon. Neil M. Judd, of the U. S. National Museum, notably dislikes our name now in use, "Threatening Rock". We agree with Mr. Judd that there is no need to change a local name which is in wide usage by the Navajos of the region. On a recent trip to Chaco Canyon, Park Naturalist Dale S. King interviewed several Navajos to get the Navajo name and the literal translation. His informants agreed with several published references, calling the rock, "Tse pi' hania" (Rock braced). Therefore, it seems that we should change the name we use to "Braced Rock" or "Propped Rock". What do Mr. Judd and the men in the field think of this suggestion?

*****SWM*****

SKELETON FOUND AT BANDELIER

By C.G.Harkins

On the morning of June 27, 1938, Temporary Park Rangers Tommy Onstott and James Spuhler made a trip to the Otowi Section of Bandelier National Monument to recover a skeleton that had been reported by a visitor to the monument on June 25, 1938. The report was substantiated on the 26th by Custodian Harkins and, as the upper portion of the skeleton was fully exposed to the elements, the Custodian directed that the bones be removed and preserved.

Excavation revealed that the body had not been inhumed, but that the man had met an accidental death when caught in a small landslide. A tuffaceous boulder, some 75 cubic feet in volume, had apparently struck down the Indian at a point about 65 feet down the talus from the southernmost extension of the mesa just west of Otowi ruin and north of the Los Alamos Ranch School's Camp Hamilton. The position

SKELETON FOUND IN OTOMI SECTION AT BANDELIER (CONT)

of the bones indicate that the Indian had, upon analyzing his predicament, turned to face the falling boulder and, with arms outstretched to ward off its course, had been crushed to death. A smaller tuffaceous boulder checked the downward path of the killing rock and held it stationed directly over the body.

Death probably resulted from shock resulting from a back broken in the lumbar region, a crushed thoracic cavity (nine of the left ribs were broken), smashed frontal and facial region and two broken ulnae.

Although the volcanic ash surrounding the body was carefully screened, a number of the smaller bones were not recovered. All the mandibular incisors, the lower right third molar, and the maxillary central incisors are missing. Other missing parts include all the bones of both right and left hands and wrists, the left clavicle, six cervical vertebrae, and the bones of the left foot excepting the calcaneum. Probably some of the missing bones could have been recovered by removing more ash from beneath the larger boulder of tuff. However, this procedure would have endangered the balance of the rock. The loss of a number of smaller bones may be attributed to pack rats as numerous signs of these animals were observed.

No material of a cultural nature was associated with the skeleton, but the general appearance of the remains indicate no very great passage of time.

The skeleton has been sized, packed, and is being preserved at the Bandelier Museum.

Note: After the above had been written, Dr. E. B. Renaud of the University of Denver Anthropology Department examined the skull of this skeleton and sexed it as a male about 40 years old.

*****SMI*****

NATURE TRAIL OPERATION

By Paul Beaubien

(Ed. Note: Park Naturalist Arthur Stupka of Great Smoky Mountains National Park is accumulating information on nature trails. Junior Archaeologist Beaubien's replies to Stupka's questionnaire may be of interest to the field as Beaubien probably has had more experience with such trails than any other Southwestern Monuments man. Since Beaubien has developed nature trails at both Walnut Canyon and Saguaro, his replies will be segregated: 1. Walnut Canyon; and 2, Saguaro)

WHEN WAS YOUR FIRST NATURE TRAIL LAID OUT?

1. October, 1934.

2. December, 1935

NATURE TRAIL PLANNING AND OPERATION (CONT)

WHERE?

1. In Walnut Canyon where there are many small cliff dwellings and plants of three life zones.
2. Beside the ranger station where there are many desert plants.

WHAT FEATURES (GEOLOGY, PLANT LIFE, ETC.) WERE STRESSED?

1. Archeology and ethnobotany
2. Botany only

HOW LONG WAS THE TRAIL?

1. About five eighths of a mile.
2. The trail was really an outdoor museum. About 200 yards.

APPROXIMATELY HOW MANY LABELS WERE USED?

1. About 25 at first.
2. Thirty.

WHAT WAS THE PUBLIC'S REACTION TO IT?

1. About 75 percent of the visitors to the cliff ruins read the signs. About half of these gave enthusiastic approval.
2. It met with interest and approval.

ADDITIONAL REMARKS CONCERNING THE MONUMENT'S FIRST NATURE TRAIL.

1. Informative signs were placed along the trail to the cliff dwellings because it was impossible for one part-time ranger to give adequate guide service. Impetus was given to the project by the timely visit of Dr. Frank E. Lutz.
2. With the aid of Mr. J. J. Thornber of the University of Arizona, and of Dr. Forrest Shreve, Director of the Desert Laboratory of the Carnegie Institution, the nature trail at Saguaro was established as much to help the newly arrived ranger as to inform the public. Its use was continued because there were many times when the ranger unavoidably absent and guide service thereby unavailable.

HOW MANY NATURE TRAILS ARE MAINTAINED IN YOUR MONUMENT?

1. Just one.
2. Only one.

WHAT TYPE LABELS ARE USED?

1. Hand-lettered cardboard labels and metal labels obtained from the Western Museum Laboratories at Berkeley.
2. Informal shipping tags at first; formal aluminum labels later.

HOW MUCH INFORMATION IS INCLUDED ON A LABEL?

1. Four words minimum, about 50 words maximum.
2. Common name, scientific name, and one brief statement regarding some interesting or unusual characteristic.

HOW ARE THESE LABELS PREPARED?

1. Each type is mounted on a half inch pine board which in turn is nailed to a short standard or log.

NATURE TRAIL PLANNING AND OPERATION (CONT)

2. The metal labels were obtained from the Western Museum Laboratories, the others were prepared and lettered by the ranger.

DO TRAIL USERS APPROPRIATE MANY LABELS?

1. Very few disappear, but it sometimes happens.
2. No.

WHAT OTHER VANDALISM HAS BEEN PERPETRATED ON YOUR NATURE TRAILS?

1. There seems to be less vandalism since the labels were placed.
2. Some damage to plants has occurred.

ASIDE FROM LABELS, ARE THERE ANY OTHER UNNATURAL ELEMENTS ALONG YOUR TRAILS (SEATS, BIRD BOXES, WASTEPAPER CONTAINERS, ETC.)?

1. No.
2. No.

WHAT PART HAS THE C.C.C. PLAYED IN YOUR NATURE TRAIL PROGRAM?

1. and 2. I believe that the metal labels are made with C.C.C. labor.

WHAT ATTEMPT, IF ANY, IS MADE TO DETERMINE THE USAGE OF YOUR NATURE TRAIL BY THE PUBLIC?

1. No deliberate attempt. However, the behavior of several thousand visitors per year is observed by the ranger as about one third of the trail is in view from the canyon rim where the ranger is stationed several hours each day of the heavy traffic period. Further, the ranger contacts about 50 percent of the visitors and can tell from their questions how much use has been made of the signs.
2. There is a register at the beginning.

HOW DOES THE PUBLIC KNOW ABOUT THE EXISTENCE OF YOUR TRAILS?

1. People come to see the cliff dwellings. If they visit the dwellings, they are routed over the nature trail.
2. When the ranger is at the monument, people are conducted over the trail. At other times they have to find it for themselves. It is located beside the road and begins at the register.

IN YOUR OPINION, ARE NATURE TRAILS WORTH WHILE?

1. and 2. Yes. I believe that educated people, who are accustomed to securing knowledge from reading, will retain facts longer if the information is gained ocularly instead of orally. Deaf people are not embarrassed on a nature trail. The labels can tell the same story day after day without being compared to a phonograph. A nature trail saves guiding time at any undermanned monument by separating those who are interested from those who only wish to say that they have been there. The labels are helpful when a party is

NATURE TRAIL PLANNING AND OPERATION (CONT)

personally conducted along the trail, as some wish to take notes, and many wish to both see and hear.. I believe the information has a tendency to be more accurate as a ranger would never print anything he could not prove. I have heard many compliments on nature trails elsewhere, and have never heard any disparaging remarks. The old may go slow and the young may go fast on a nature trail.

WHAT HAS BEEN THE TREND OF YOUR NATURE TRAIL SYSTEM? WHAT ORIGINAL IDEAS WERE ABANDONED AND WHAT LATER ONES WERE FOUND TO BE MORE SUCCESSFUL?

1. and 2. More signs and less trail, even if some plants had to be transplanted short distances. More labels, more words per label, broadening of subject matter. At first, shipping tags were used for labels, but were found to be too small and inconspicuous. Most of the trail here is on the ledges of a deep canyon and visitors watch their path closely. Thus, it was necessary to place the labels close to the ground. This demanded that the lettering be of sufficient size to be read ten feet from the eyes.. The wording has become more simple. "Farmers" is preferred to "agriculturists"; "salt water fossils" is more effective than "marine fossils"; "400 years before Columbus" commands more attention than 1092; etc. At first I tried to divide a story into several statements placed on consecutive labels. Later I came to believe that the story could be told on one label with better results. Vandalism is more effectively checked by calling attention to the thoughtlessness of others, instead of threatening punishment. Because visitors are attracted to Walnut Canyon by the cliff dwellings, the information given at first was concerned only with archeology and ethnobotany. But so many visitors asked questions about other subjects, I began to label everything that seemed to be of interest.

HAVE YOU ANY ADDITIONAL SUGGESTIONS AND COMMENTS?

1. and 2. The most important need when installing or maintaining a nature trail is development of a technique whereby an ordinary ranger may quickly and cheaply make attractive labels. Then it would be possible to experiment more with phraseology, and additional labels could be secured as needed without having to wait for preparation at a distance. The wording from a few labels at Walnut Canyon follows:
HOPTREE, SHRUBBY TREFOIL, or WAFER ASH (*Ptelea crenulata*) The bark, leaves, and roots have bitter-tonic properties and were used in medicine. Indians still come many miles for this plant.
LEMONADE SUMMAC OR SQUAW BUSH (*Rhus trilobata*) The berries were used as food while the twigs were used in coarse basketry and for ceremonial purposes. Some Indians powder the dried

NATURE TRAIL PLANNING AND OPERATION (CONT)

berries to make a lotion for smallpox. Of the four woods burned in Hopi kivas, this is one.

PINYON PINE (*Pinus edulis*) In good years the seeds were important as food. Pitch from Pinyon trees was used for medicinal purposes, for waterproofing pottery and baskets, for attaching arrow points to shafts, etc. The scars on this Pinyon Pine were caused by a porcupine.

BROAD LEAF YUCCA (*Yucca baccata*) The leaves were shredded and the fibres made into baskets, sandals, cordage, etc. A strip of leaf with end chewed was a brush for painting pottery. Fruits and seeds were eaten, and the latter used as beads. Roots were used as soap.

The plant hanging from the ledge overhead is a **DRY FERN** (*Cheilanthes feci*).

The women plastered all these dwellings by hand. Note finger impressions that were here centuries before Columbus discovered America. Every year thousands of people wish to see them, so please do not touch or deface. The tar-like soot on the ceilings resulted from burning pitch pine. The smoke-blackened rocks in this wall indicate that it was built from the remains of an earlier one.

During warm weather household activities probably were carried on outside--dwellings used for storage and sleeping. At other times a small fire would serve for warmth, light, and cooking. The small doors would be easier to close or defend.

The dwellings are between ledges of Kaibab Limestone. The same formation forms the rim of Grand Canyon. It contains salt water fossils such as sponges, trilobites, brachiopods, etc. Below is the Coconino Sandstone, containing no fossils. From its cross-bedding, geologists consider it a sand dune formation.

*****SWM*****



RUMINATIONS

By the Boss

Here I come to work Monday morning after a week-end in the field with a Brass Hat from Washington and before I can get the mail read Natt puts his head in and says: "We are ready for those Ruminations as soon as you can write them." So I pull myself out of the middle of an interesting report from Bill Leicht and prepare to help Vic and Natt keep the press rolling. I don't know whether you have caught it or not, but the Supplement goes to press before the Report, so we are finishing the Supplement today just as the first batch of reports are arriving from the field.

It is pleasant to know that my veracity, which was under fire on this recent field trip, came through practically unscathed. While we were looking over the Saguaro National Monument, where we own a patch of timber (about as big as some of those quart-size New England states) across the top of the mountains, and the State owns the finest single stand of Saguaros in the world inside the boundaries of our Monument, I told a little ~~episode~~ about the good old days when cactuses had the real pioneer spirit. The story ran to the effect that I had seen a Bisnaga, which is the so-called Barrel, or Devil's Nail Keg type of cactus, uprooted on the desert; lie there for three months with its roots in the air and then bloom. Hugh and the Brass Hat were very nice about it; they didn't call me a liar; they just said they didn't believe it and I couldn't even get them to take 45 days apiece of the three months. They just rejected the story in toto.

I was already in the dog house because I had put Hugh and the Brass Hat on the correct road and then, being busy in the mental dream of developing the Saguaro National Monument those next ten or eleven years, and being in the back seat with the luggage and not much of a back seat driver, I paid them no further mind, as we Texans say, until they fell on me with cries of anguish because their road had quit on them. Of course their trouble was that they had forked off the road I had put them on while my attention was elsewhere.

Well, that evening, in the soft luxuriance of the lobby of the Pioneer Hotel, we were talking to a man who is a real big shot in his line which has to do with the great outdoors. As we were about to part for the night I asked the big shot to back me up a little on this cactus story about the cactus blooming after its roots had been away from the soil for six months. I know that is twice as long as I said the first time, but I just figured that if they didn't believe me when I pulled my punches, I might just as well tell the truth.

Well, Sir, he sure gave me a noble backing. He told about Dr. MacDougald, out at the Carnegie Desert Laboratory, or one of his experts, who pulled up a Bisnaga, dusted off its roots, put it down on the cement floor of his collar for THREE YEARS and then set it out

RUMINATIONS (CONT)

in the round and it went right on doing business and bloomed the next season! I guess that held them! They each of them swallowed that whole three years where they had balked on even a half of my three months!

It just shows you that Hugh and the Brass Hat were shy of an old timer in the Park Service but would believe a big shot right off the bat. And here I have been sending my perfectly honest, well meaning reports and alibis to that Brass Hat these eighteen or twenty years, and I suppose, from this experience, he hasn't believed even the half of them!

The first time I met that big shot was about 14 years ago when, coming over the old Florence road along in the night, I found him with a burned bearing, and pulled him some twenty miles into Florence. Fourteen years before he got a chance to help me out of a jam, but he was there when I gave the sign as though it were yesterday.

And now, probably both Hugh and the Brass Hat will think we are both liars, Nick, instead of believing my story because you raised the ante from three months to three years. Anyway, you helped me back into a state of grace for the time being at least and the Brass Hat accepted my facts and figures pretty much all day Sunday, except just here and there. Thanks, Old Timer.

Cordially,

The Boss.

file

SOUTHWESTERN MONUMENTS

MONTHLY REPORT



AUGUST - - - 1938

DEPARTMENT	OF	THE	INTERIOR
NATIONAL	PARK	SERVICE	

SOUTHWESTERN MONUMENTS PERSONNEL

HEADQUARTERS, Southwestern Monuments, Coolidge, Arizona; Frank Pinkley, superintendent; Hugh Miller, assistant superintendent; Parke W. Soule, chief clerk; J. H. Tovrea, assistant engineer; Charles D. Carter, junior landscape architect; Dale S. King, assistant park naturalist; Charlie R. Steen, junior park archeologist; Natt N. Dodge, junior park naturalist; Luis A. Gastellum and Russell Landry, clerk-stenographers; Ira G. Goodwin, CCC clerk; F. E. Stonehocker, machinist; J. L. L. Baehr, utility man.

FIELD STATIONS; NO. VISITORS, 1937; POST OFFICE; PERSONNEL; AREA IN ACRES

1. <u>Arches</u> ; 1,000; Moab, Utah; Harry Reed, ranger.- - -	4,520.00
2. <u>Aztec Ruins</u> ; 14,001; Aztec, New Mexico; T. C. Miller, - - custodian; James W. Brewer, Jr., park ranger.	25.88
3. <u>Bandelier</u> ; 14,560; Santa Fe, N. Mex.; C. G. Harkins, - - - custodian; I. McNeill, T. Onstott, J. M. Spuhler, temporary rangers; George Sholly, grader operator; 3 CCC guides.	26,026.20
4. <u>Canyon de Chelly</u> ; 1,422; Chin Lee, Arizona; Johnwill- - - Faris, custodian; L. C. Ingle, guide; W. Spires, ranger - -	83,840.00
5. <u>Capulin Mountain</u> ; 26,100; Capulin, N. Mex.; H. Farr, Cust. -	680.37
6. <u>Casa Grande</u> ; 43,631; Coolidge, Ariz.; A. T. Bicknell, - - custodian; Don W. Eggermayer, park ranger; J. Rodgers, S. Coyle; V. Scholz, T. Savage, G. Sheffield, and L. Mungerro, CCC guides and helpers.	472.50
7. <u>Chaco Canyon</u> ; 8,014; Chaco Canyon, N. Mex.; Lewis T.- - - McIntire, custodian; Homer Hastings, temp. ranger.	21,512.37
8. <u>Chiricahua</u> ; 8,288; Douglas, Ariz.; Frank Fish, cust.; - - Gordon Philp, park ranger; H. Bennett, Wm. Stone, H. Minton, CCC guides and helpers.	10,694.80
9. <u>El Morro</u> ; 2,298; Ramah, N. Mex.; R. R. Budlong, cust. - -	240.00
10. <u>Gila Cliff Dwellings</u> ; 250; Cliff, N. Mex.; no custodian -	160.00
11. <u>Gran Quivira</u> ; 4,414; Gran Quivira, N.M.; G. L. Boundey, cust.-	610.94
12. <u>Hovenweep</u> ; 500; Cortez, Colo.; A. Peterson, temp. ranger. -	285.80
13. <u>Montezuma Castle</u> ; 9,813; Camp Verde, Ariz.; Earl Jackson, custodian; Edwin Alberts, park ranger.	520.00
14. <u>Natural Bridges</u> ; 740; Blanding, Utah; Zeke Johnson, cust.-	2,740.00
15. <u>Navajo</u> ; 329; Tonalea, Ariz.; John Wetherill, cust.; - - - William F. V. Leicht, park ranger.	360.00
16. <u>Organ Pipe Cactus</u> ; 5,000; Ajo, Arizona; No custodian.- - -	330,670.00
17. <u>Pipe Spring</u> ; 1,042; Moccasin, Ariz.; Leonard Heaton, cu.	40.00
18. <u>Rainbow Bridge</u> ; 300; Tonalea, Ariz.; no custodian.- - -	160.00
19. <u>Saguaro</u> ; 20,000; Tucson, Arizona; no custodian- - - - -	63,284.00
20. <u>Sunset Crater</u> ; 10,000; Flagstaff, Ariz.; P. Beaubien, cust.-	3,040.00
21. <u>Tonto</u> ; 5,368; Roosevelt, Ariz.; R. Richert, temp. ranger. - -	1,120.00
22. <u>Tumacacori</u> ; 18,472; Box 797, Nogales, Ariz.; Louis R.- - - Caywood, cust.; T. Cronyn, park ranger.	10.00
23. <u>Walnut Canyon</u> ; 10,772; Flagstaff, Ariz.; P. Beaubien, ranger -	960.00
24. <u>White Sands</u> ; 91,532; Alamogordo, N. Mex.; Tom Charles, - - custodian; Joe Shepperd, grader operator.	142,987.00
25. <u>Wupatki</u> ; 2,080; Flagstaff, Ariz.; David Jones, in charge-	35,865.00
26. <u>Yucca House</u> ; 400; Cortez, Colo.; A. Peterson, temp. rang. -	9.60
Total visitors, 1937, 291,426. Total acreage administered last month, 730,834.76 acres, or 1,141.92 square miles.	

SOUTHWESTERN MONUMENTS

AUGUST, 1938, REPORT

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OPENING

By Superintendent Frank Pinkley,
Southwestern Monuments,
Coolidge, Arizona.

The month of August finds us at the height of our visitor season among the Southwestern Monuments and the indications are that it is a better season than last year with more people on the road, although the total expenditure of the tourist traffic does not seem to average much more than last year.

The month was a little above the average in heat and a little on the dry side. We were uneasy most of the time about our three hot spots, Bandelier, Chiricahua, and Saguaro, but had no fires that amounted to anything.

In this matter of forest fires, we would like to impress upon those of you who represent us at Washington before the Bureau of the Budget, that great stress should be laid upon protection at Saguaro in the hearings soon to be held. This monument, as it is now constituted, is in two parts, one lying at the foot of the mountains containing the cactus, and the other running back over the top of the mountains containing the forest. Fortunately, the visitors do not get into the forest, nor do we want them to go there. But lightning fires start up there, and, with nobody at all in charge of the monument for about eight months in the year, we have a serious situation. We can handle it all right if you can get us the men and money, but thus far it is primarily due to Providence and not to the Bureau of the Budget that the top of the mountain hasn't been burned off. The Forest Service has come over and put out two or three fires for us this summer. We have paid our share of the expenses, but it is asking a good deal of Fred Winn's fine crew to ask them to handle our fire problems. Another Saguaro problem which looms upon us is the hunting season. We cannot keep a man in charge because of lack of funds and we have not thus far figured where we can detach the two or three men necessary to establish a minimum patrol during the hunting season to protect the game which runs on top of the mountain. Without a patrol it is certain we will have poaching.

Our personal worked hard to take care of the more than fifty thousand visitors in the past month. Nearly half of them went to monuments where we either have no personnel or where the number of men is inadequate, and so those visitors could get no service. Just before writing this, I have read the diary of a custodian on a two-man monument and note that he has been opening up at 7:30 and closing at any time from 6:00 to 7:45 this month. Your reply may be that this is due to a summer peak and the boys don't work so much in winter, which is true; they only work eight hours a day six days a week in the winter, so they don't have to donate so much extra time to the Government.

Our third CCC camp, NM-5-A, near Flagstaff, is now fully manned and has started into action. The bulk of its work this fall and winter will

OPENING (CONT.)

be at Walnut Canyon National Monument. It looks like the camp is going to be a good one and it will have to be to get done what we have laid out on the money we have to work with.

The two camps, one at Bandelier and one at Chiricahua, and the side camp from Chiricahua which is working at Casa Grande, have had a successful month and are making good progress.

Final agreement with all parties was reached in connection with the Walnut Canyon boundary changes and the matter is now in the Washington office awaiting the proclamation.

I note, in checking last month's report, that we were uneasy about the impending Public Works program. That fear is now laid by your statement that there would be none. You did, however, throw some strain on our machinery by asking for plans, justifications, and estimates of materials and labor on the sixteen or eighteen construction projects we were allowed to prepare for the Budget by laying your deadline terribly close. Alone, it wasn't a big job, as jobs go in our office, but with a deadline so close after the month end, along with all the others which fall then, it made the wheels creak.

We are fortunate in getting the extra position in the office which we were asking for and, when we get that filled and the man broken in, we hope to reduce overtime work in the office.

We have been a little amused at the fan mail during the month. One man complains that we have not made it much easier to get to Rainbow Bridge and Canyon de Chelly. Another complains at that "terrible road" over Onion Saddle coming into Chiricahua from the east. This latter man then complains that we have ruined the atmosphere of Mesa Verde with that plain wide highway of an entrance road and there is no interest in driving it as there used to be. Another complains at getting stuck in the sand on the way into the Arches and we promise him to meet him at the highway two years from now and pilot him in, just to be sure he gets there: he having plans to go to the New York Fair next year and so can't come west until the year after.

Next month will close the visitor year and we are pleased to note that our boys are going to give a total of some twenty-seven thousand field and museum trips for the visitor year. That sounds like our work was partly educational, doesn't it?

Cordially,

Frank Pinkley
Frank Pinkley,
Superintendent.

CONDENSED REPORT

IN WHICH HIGHLIGHTS OF THE MONTH ARE GIVEN

Coolidge, Arizona,
September 1, 1938.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

The Condensed Report for the month of August, 1938, follows:

MONUMENT	August 1938	August 1937	August 1936	To last of July	Travel Year To Date
Archaeos.	182	---	---	1,536	1,248
Aztec Ruins	3,479	3,056	2,152	13,574	17,453
Bandelier	3,355	3,825	3,110	9,454	12,809
Canyon de Chelly. . .	362	337	109	943	1,305
Capulin Mountain. . .	3,000	7,000	4,100	15,700	23,700
Casa Grande	1,694	1,804	1,407	30,178	31,872
Chaco Canyon.	650	1,313	1,212	4,476	5,126
Chiricahua.	1,012	1,077	906	7,557	8,569
El Morro.	764	561	470	2,002	2,766
Gila Cliff.	20	---	---	75	95
Gran Quivira.	417	892	730	2,524	2,941
Hovenweep	20	---	---	140	160
Montezuma Castle. . .	1,696	1,503	1,578	7,794	9,490
Natural Bridges . . .	197	150	72	422	619
Navajo.	76	71	---	276	352
Organ Pipe.	300	---	---	5,550	5,850
Pipe Spring	315	111	105	1,627	1,942
Rainbow Bridge. . . .	30	---	---	172	202
Saguaro	300	511	---	19,772	20,072
Sunset Crater	1,428	1,193	1,231	4,671	6,099
Tonto	277	296	324	4,468	4,745
Tumacacori.	1,152	1,079	1,037	13,145	14,297
Walnut Canyon	2,827	2,590	2,034	8,786	11,613
White Sands	22,941	12,471	18,753	73,418	96,359
Wupatki	652	417	436	1,549	2,201
Yucca House	10	---	---	152	162
TOTALS	52,156	40,257	40,942	229,871	282,047
Same date year ago					279,838
Increase					2,209

CONDENSED REPORT (CONT.)

000 GENERAL

020 Weather

Most Custodians have reported that August has been hot and dry; although some showers have fallen, the rainfall has been below normal. At two monuments, Chiricahua and Montezuma Castle, heavy showers have boosted precipitation figures higher than is usual for August. Budlong, at El Morro, reports that temperatures are falling and that frost, and possibly snow, are to be expected during September. El Rito de los Frijoles, at Bandelier, is dry from the ranger station to the Rio Grande--some loss of fingerling trout was noticed as the creek dried. Two cloud bursts on the eighth and eleventh washed out the road into Arches.

100 ADMINISTRATIVE

123 Inspections by Park Service Officials

Arches: Carroll H. Wegemann (page 135).

Bandelier: Lyle Bennett; Carl Wells; Homer Hastings; Hugh Miller, (page 107).

Canyon de Chelly: Louis Caywood; Lewis McKinney (page 110).

Casa Grande: Frank Fish; Jack Diehl; Al Keuhl; Erik Reed (page 127).

Chiricahua: Superintendent Frank Pinkley; Hugh Miller; A. C. Keuhl; Jack Diehl (page 99).

El Morro: A. E. Demaray; Hugh Miller; Charles Richey (page 131).

Gran Quivira: A. E. Demaray; Hugh Miller (page 101).

Hovenweep: T. C. Miller (page 106).

Montezuma Castle: A. E. Demaray; Hugh Miller; J. H. Tovrea; A. C. Keuhl; Jack Diehl (page 113).

Navajo: Associate Director A. E. Demaray; Hugh Miller; Supt. M. M. Tillotson, Grand Canyon; Al Keuhl; William Lippincott (page 95).

Pipe Spring: Al Keuhl; J. H. Tovrea (page 111).

Tonto: A. E. Demaray; Hugh Miller; Harvey Cornell; A. C. Keuhl, (page 137).

Tumacacori: Charlie Steen; Dale King; Jack Diehl; Harvey Cornell; J. H. Tovrea; Charlie Carter; Erik Reed (page 97).

Walnut Canyon: Al Keuhl; A. E. Demaray; Hugh Miller; Earl Jackson; W. B. MacDougal; Jack Diehl; J. H. Tovrea (page 105).

White Sands: A. E. Demaray; M. J. McCollm; Hugh Miller; Jack Diehl; Harvey Cornell; W. B. MacDougal (page 102).

Wupatki: A. E. Demaray; Hugh Miller; Al Keuhl; W. B. MacDougal; Paul Beaubien (page 121).

125 Other Government Officials

Bandelier: Mattingly, Bureau of the Budget; Mr. Bradley, Indian Service (page 107).

Canyon de Chelly: Mr. Mattingly, Bureau of the Budget; Superintendent Fryer, Indian Service, (page 110).

Montezuma Castle: M. M. Ellis, Bureau of Fisheries; H. A. Kendall and party of Forest Service officials (page 113).

Tonto: Forest Supervisor Fred Winn; S. A. Sowell, Forest Service; G. E. Engstrom, Forest Service; M. M. Ellis, U. S. Bureau of Fisheries, (page 137).

CONDENSED REPORT (CONT.)

Tumacacori: Senator Carl Hayden, (page 97).

White Sands: Vernon Randau (page 102).

150 New Equipment

Aztec Ruins: A Kodak 6-16; 550-gallon gasoline storage tank; rain gauge (page 125).

Bandelier: Glass for museum cases received and is being installed.

170 Plans, Maps, Surveys

Chiricahua: Survey and posting of the recent addition to the monument started on August 9, (page 99).

White Sands: Three man crew is running a preliminary line from headquarters to Dog Canyon for the proposed water pipe (page 102).

180 Circulars, placards, publicity

Chiricahua: Descriptive literature sent to the Tucson Chamber of Commerce at their request (page 99).

Wupatki: Southwest Tourist News contained a short article on Wupatki and other northern Arizona monuments; the "Hostesses" employed by the Flagstaff Chamber of Commerce have been routing visitors to Wupatki (page 121).

200 MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTION

210 Maintenance

Montezuma Castle: Minor repairs made on IES equipment (page 113).

220 Improvements

Bandelier: Two fire hydrants have been installed in the residential area, (page 107).

231 CCC Construction

Aztec Ruins: Work by the Indian CCC Mobile Unit is progressing in a very satisfactory manner (page 125).

Bandelier: Lobby and sales room building practically complete; Operator's residence plastered to finish coat; Cabin "A" of Operator's Development completed except for interior finish; wall construction of Cabin "B" finished; carpenters crew has finished door openings for residence and two cabin groups; installation of power line completed; quarry crew worked entire month, (page 109).

Casa Grande: Wall between shop and oil house completed; warehouse floor 75 per cent complete; oil house walls and slab roof completed; four man days expended on camp maintenance; 2,500 adobe bricks made.

Chiricahua: 600 yards of banks were sloped on Bonita Highway; $\frac{1}{4}$ mile of Bonita Highway surfaced; telephone line from headquarters to Paradise has been brushed; exhibit cases for administration building have been made; masonry on warehouse completed; work continued in rock quarry; boundary survey started, (page 100).

Pipe Spring: Ditch elimination project completed and pipe line job nearly complete, (page 111).

Walnut Canyon: CCC Camp NM-5-A is manned and has started to work.

Wupatki: 25 to 50 CCC boys have been working on the Citadel entrance road during the month and it is now in pretty fair shape.

240 Improvements of Approach Roads

Aztec Ruins: Approach roads are all in excellent condition, (125).

CONDENSED REPORT (CONT.)

Bandelier: Survey party from the Regional Office is setting stakes in preparation for surfacing job. Contract for work has been let to W. W. Barton and Sons, of Hatch, New Mexico, (page 107).

Chiricahua: Approach roads in good condition except for two small detours where some construction is being done, (page 99).

Gran Quivira: Approach roads in very bad shape, (page 101).

Hovenweep: Roads in vicinity are in poor shape, (page 106).

Montezuma Castle: Approach roads were blocked for a couple of days due to washouts but were quickly repaired (page 113).

Navajo: Indian CCC is improving the Shonto road, (page 95).

400 FLORA, FAUNA, NATURAL PHENOMENA

420 Museum Service

Montezuma Castle: Several reptile specimens added to collection. Textiles from Montezuma Castle collection are being studied by F. H. Douglas, Denver Art Museum; Volney H. Jones, University of Michigan; and Dr. A. C. Whitford, of Alfred, New York, (page 113).

480 Natural Phenomena

Navajo: Short description of geology of the monument (page 95). Rocks have fallen from cliff and blocked the Betata'kin Spring. The ranger and two visitors endangered.

600 PROTECTION

620 Fire Protection

Chiricahua: Fire lookouts removed early in August. No fires occurred on the monument this year and all fires on the surrounding Coronado National Forest were held to small acreage, (page 99).

Walnut Canyon: Two small fires were located on the monument on the south side of the canyon. One was extinguished through cooperation with the Forest Service, the other with CCC labor, (page 105).

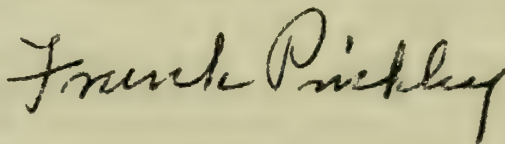
700 ARCHEOLOGY, PREHISTORY, HISTORY

Bandelier: Ranger Spuhler spent four days determining ground floor levels of Tyuonyi. Data to be used in construction of the model of the community house which is to be made for the museum lobby.

Navajo: Hope tale of why Betata'kin was abandoned is related.

Tumacacori: The de Young Museum of San Francisco has loaned the museum eleven specimens of colonial Spanish arms, (page 97).

Cordially,



Frank Pinkley,
Superintendent.

FIELD REPORTS

FROM THE MEN ON THE JOB

NAVAJO

By William F. V. Leicht, park
ranger, Tonalea, Arizona.

Visitors this month, 76; total since October 1, 352.

Topographic features that excite the admiration and curiosity of visitors to Navajo are the sandstone domes, half-domes, and mounds that enhance the thrilling scenery in the vicinity of the monument. These fantastic forms are seen in a broad belt that extends across northern Arizona and southern Utah; that is, wherever the Navajo sandstone occurs. They are the erosional remnants of the flat-topped mesas that are mingled with them.

It is these flat-topped mesas that furnish the key to an explanation of this interesting topography. Mesas owe their form to a resistant flat-lying formation capping a less resistant one. When the overlying formation becomes removed through erosion, the rock beneath, which is often a friable sandstone, weathers into rounded topographic forms.

In the area under discussion the mesas are generally capped with a thin layer of resistant blue-gray limestone. The underlying formation is the buff-colored Navajo sandstone, which is even-textured, friable, and greatly cross-bedded. When the capping formation is removed, the softer rock below weathers into domes which are later reduced to mounds. Where there is less cohesion between sand grains, a conical hill results. The blasting effect of wind-blown sand further modifies the shapes of these forms.

I have wondered if cross-bedding does not play a considerable part in the shaping of the domes and mounds. Many mounds show contours that follow closely the tangential cross-bedding so characteristic of this sandstone.

The Navajos have a most apt name for these domes and mounds. They call them "frozen sand dunes".

The past month has displayed striking contrasts in weather. The intensest heat of the summer occurred then, followed by the chilliest temperatures of the season. Part of the month was clear, sparkling, calm; the remainder rainy, with electrical storms and cloudbursts. On the whole, the month has been pleasant. The rains, while still insufficient, have benefited the range and improved sandy roads.

NAVAJO (CONT.)

A total of seventy-six visitors came to the monument. Of this number four went to Keet Seel, none to Inscription House. Betata'kin, being the most accessible, always has the heaviest travel.

Park Service visitors were Associate Director A. E. Demaray, Washington, D. C.; our Assistant Superintendent Hugh M. Miller, Coolidge, Arizona; Superintendent M. R. Tillotson, Grand Canyon; Landscape Architect Al Kuehl, Santa Fe, New Mexico; and Ranger and Mrs. William Lippincott, Canyon de Chelly.

Additional work is being done on the Betata'kin road by the CCC. The Shonto Hill has already been greatly improved, and there is the pleasant prospect of other bad stretches of the road being given immediate attention.

An incident occurred at Betata'kin this past month that will be long remembered by two Harvard students and myself. We were at the spring, which is just inside the great cave, when we heard a sharp report like an explosion overhead. I yelled, "Run! Falling rocks!" I think we must have broken a world record in speed as we ran down the trail. Even so, a chunk of rock hurtled between the two boys and one struck at my heels. Since then tons of rock have fallen into the trail at the spring, sweeping away trees and destroying part of the spring itself. At irregular intervals there is a dull muffled roar as more rocks come down. Nature is perfecting the symmetry of the great arch.

I have roped off the trail, putting up danger signs. No one is permitted to go to the spring or to cross the danger zone. The ruins may be entered from the other side of the arch by those who desire to make the effort of going through heavy brush and climbing over boulders to reach them. Those visitors I now take to the east end of the cave, where it is not necessary to walk over the roofs of dwellings. The traffic over fragile roofs is resulting in damage to those structures. I hope that some day the only view permitted of Betata'kin will be from the rim of the canyon. There is an enchantment about that view of the ancient city that is not to be gained by a closer observation of it.

The plague of falling rocks brings to attention the three plagues that Hopi tradition ascribes as being the reason for the exodus of the ancient people from Betata'kin. The story came to me from a white man of note who was made a member of a Hopi clan. I give you the story in substance as it was told to me.

"For many years the ancient people lived peacefully at Betata'kin, cultivating their crops in the bottomlands and going about the daily tasks at their dwellings in happy contentment. Suddenly, there came a plague of rattlesnakes. The reptiles overran the canyon, crawling into the cave and into the very dwellings. It seemed a bad omen to the ancient people.

NAVAJO (CONT.)

"Close upon the plague of rattlesnakes came a still worse one -- drouth. Each year the rains became less and less, the ears of corn shrank in size, and there was scarcely enough food to eat, scarcely enough water to drink. This was a second bad omen.

"Still a third plague came to harass the drouth-stricken people. The time was late winter or early spring. Melting snows trickled from the plateau above, freezing and forming a fringe of huge icicles that extended across the great arch. Then one day a fierce wind swept down the canyon, pressing against the icicles and breaking them off. Several of the ancient people were killed by the falling spears of ice. While thoughts of migration were filling the minds of the cliff dwellers, the Spider Woman said, 'Go!' Sadly the stricken people began their trek to the south."

Early one summer's evening a small group of white men and an old Navajo philosopher sat around a Betata'kin campfire. Spoke the Navajo, "Beneath us are many people (meaning strata of civilization). -- All gone". Then motioning with his lips in characteristic Navajo fashion towards the dwellings in the cave, "Those ancient people -- all gone, too. -- Soon I go. -- Then you go". At this point the old Navajo shrugged his shoulders, as if to dismiss the subject. He chuckled, "It has been a very warm day. The birds and the four-footed animals and the insects are still out. They hear what I say. I talk too much."

*****SWM*****

TUMACACORI

By Theodore Cronyn, Acting Custodian, Box 797, Nogales, Ariz.

Visitors this month, 1,152; total since October 1, 14,297.

Mr. Caywood went on annual leave on August 18, and will be away for about a month.

This month has been rather dry for a rainy season period. Although there have been many thunder storms in the region, few of them have hit the monument area. And we have had only one good soaking rain. We were grateful for a few two- and three-blanket nights recently but otherwise we have had the regulation brand of Southern Arizona warmth.

The monument area and the surrounding country are all green now; the small trees planted this year all all doing well except some of the fig trees in the patio. The Ranger, when not guiding visitors, has mostly been occupied hoeing weeds, but has had to get out the hose several times to water these young trees; and this in the midst of the "summer rains". Visitors frequently remark how inviting are the monument

TUMACACORI (CONT.)

area and the adjacent region. Other visitors, by the way, think it is lonesome here, and wonder how we stand it. Probably these people have never been to any of the remote monuments.

The number of visitors for August shows an increase over last month, and also an increase over August of 1937. However, there were 308 visitors in four hours on the afternoon of August 14, when a museum preview was held for the people of Nogales. Without the count on this special occasion, the number of visitors for the month would have been below that for last month, and also below that for August a year ago.

MUSEUM NOTES

Charlie Steen was down from headquarters for two periods, two weeks altogether, assembling museum cases and installing exhibits. Dale King was here for four days for the same purpose, in order to advance the museum work as much as possible before Mr. Caywood's departure. The museum cases are now all in place, and about three-quarters of the exhibits are installed; the remaining exhibits have not yet been received from Berkeley. Mr. Caywood was working upon museum installation all during the month.

On August there was received a shipment of weapons of the Spanish Colonial Period, these being a loan from the de Young Museum in San Francisco. This loan, which has been placed on display in the museum, includes the following articles: four flintlock pistols, two flintlock rifles, two swords, a short sword or knife, and two wrought-iron stirrups.

The comparatively few who have seen the museum exhibits are full of praise for them, and some who have seen other similar museums say this one is the best yet, in design and in execution.

PARK SERVICE VISITORS

August 17. Jack Diehl, regional engineer, dropped in at evening. We discussed possible improvement of the run-off from the parking area, various other matters pertaining to the monument, and talked over old times in Oklahoma City and Santa Fe, when Jack was the present writer's boss.

August 18. Harvey Cornell and Al Kuehl, from Santa Fe; J. H. Tovrea and Charlie Carter, from Coolidge; and last but not least, Mrs. Carter and Mrs. Kuehl. This outfit looked over the museum, the church, and the grounds; they stayed two and a half hours, which is quite a long visit for an inspection party. However, we wish their time here had been longer.

August 21. Mr. and Mrs. Erik Reed visited the church and the

TUMACACORI (CONT.)

museum, being brought down from Coolidge by Dale and Mrs. King, Charlie and Mrs. Steen. Mr. Reed, as readers of this report will doubtless know, is the archeologist of the Santa Fe office.

VISITORS

On July 29 we were honored by a visit from Senator Carl Hayden. He stopped for a short time only, and was accompanied by his secretary, Mr. Paul Roca.

On August 17, Registrar C. Z. Leshar of the University of Arizona was here, and the next day Professor George R. Nichols of the Spanish Department of the University made us a visit.

*****SWM*****

CHIRICAHUA

By Frank L. Fish, custodian,
Douglas, Arizona.

Visitors this month, 1,012; total since October 1, 8,569.

Rain occurred on July 26, 27, 28, and August 4, 6, 7, 9, 12, and 13. Weather during the remainder of the month was perfect for visitor travel. Precipitation for July and up to date has amounted to over eight inches; in fact, much more than is usually expected in this vicinity.

Fire lookouts were removed early in the month. So far this year, no fires have occurred on the monument, and all fires on the neighboring Coronado National Forest have been held to a small acreage.

Approach roads have been in good condition except for construction and improvements at two places, necessitating detours. One of these being a bridge and road realignment between the monument and Dos Cabezos. The other is on State Highway No. 81, starting at Elfrieda and extending five miles south toward Douglas.

EDUCATIONAL

	<u>Trips</u>	<u>Attendance</u>	<u>Time</u>
1938	129	708	6715 minutes
1937	59	303	2553 minutes

Total stay of all visitors for 1938 was 45,810 minutes.

Our travel figures do not include local people, Park Service officials, or late arrivals, as it is considered that they are mainly visiting friends or attending to regular duties and are not viewing the monument as guests.

CHIRICAHUA (CONT.)

The late arrivals, of course, we do not see and cannot contact.

Last month we had Associate Director Demaray and this month we were honored by a visit from the "Boss", Hugh Miller, Al Keuhl, Jack Diehl, Chuck Richey, and Joe Sheppard, all of the National Park Service.

The "Boss", Hugh, and Al, along with Christine and Genevieve, spent a couple of days here and we thoroughly enjoyed their visit. Al and Hugh finally decided the location of the orientation station and it is believed every one concerned should be satisfied. Other finishing touches along the landscaping line were discussed and it is hoped that a little of the roughness about the monument may be eliminated.

Other visitors of note were "Doc" Halliday, collecting cacti for the University of Arizona, and Madame Pauli, manager of the La Fonda apartments of Tucson, Madame Pauli being on her way to Gallup Ceremonial.

A trip was made to Coolidge on the eighth with Mr. Stevenson and Hunter Stratton, concerning surveying and marking the boundary. The "Boss" put his OK to the hiring of Hunter for the survey and this work was started August 9. An additional 500 markers have been ordered for posting as it was finally considered a brushed right-of-way was not feasible as some one flying over the area would probably discover another "Giant Causeway".

Literature on the Southwestern National Monuments was called for and delivered from Coolidge to the Tucson Chamber of Commerce by Foreman Knagge. He intrigued me with a message sent by a young lady. She claims she could kiss me for having the literature delivered so promptly. What bravery! She hasn't seen me as yet.

*****SWM*****

CHIRICAHUA CCC

By William Stevenson, project superintendent, Box 1099, Douglas, Ariz.

Work continued throughout the month on the backsloping project. Three miles north of the Sugar Loaf Truck Trail intersection on Bonita Highway, 600 square yards of banks were sloped. Materials were used to "dress" rock fill slopes in the vicinity of Massai Point. One-half mile west of Bonita Park 300 square yards of banks were sloped and materials were used to raise the grade on fill sections where settlement had occurred.

One quarter mile of Bonita Highway was re-surfaced near the administration building and several culvert catchment basins reconstructed.

The telephone line has been "brushed" from headquarters to Paradise. Poles have been cut and stubbed for replacement in sections where the

clearance is not sufficient.

Exhibit cases for the administration building have been fabricated and are now being installed.

All masonry work has been completed on the warehouse. The carpentry crew is now placing plates and beams.

Work continued throughout the month in the rock quarry.

The boundary survey was started this month. Three and one-quarter miles have been completed to date.

*****SWM*****

GRAN QUIVIRA

By George L. Boundey, custodian,
Gran Quivira, New Mexico.

Visitors this month, 417; total since October 1, 2,941.

Visitors for August, 417, are considerably under last year. But the excavations going on at the state parks north of Mountainair are naturally drawing the bulk of the visitors coming in from the north. The major portion of the visitors we are getting are those who have long desired to see Gran Quivira and have made their visit here a definite object.

I understand they are continuing to make interesting finds at Abo.

About a month ago I drove over the new Carrizozo road as far as grading had been completed and found the road in excellent shape. The few cars we have been getting from that direction have been routed by Carrizozo people over the old road, which is in terrible shape. wishing to satisfy myself, last week I made a trip over both the old and new roads and found both in such shape that until the rains have settled the road bed of the new road, we can expect few visitors from that direction.

We have received our usual quota of summer rains here at Gran Quivira but the greater portion of this valley has received but one rain during the entire season and that was on July 18. The bean crop is estimated at about one-fifth normal.

Associate Director Demaray, Assistant Superintendent Hugh Miller, and party visited Gran Quivira on August 3. I believe this is the first time the Associate Director has visited this portion of his territory.

GRAN QUIVIRA (CONT.)

A number of the officials of the state Rotary Club, in convention at Mountainair, spent several hours at the monument and are anxious to see a good oiled road from the south. This oiling of the new south road is being promised by one of our candidates for governor in the next election.

Two elderly ladies, twin sisters from Holland, spent several hours at the monument. They left here for Mesa Verde by way of Chaco Canyon and Aztec. After visiting this group of ruins we have little trouble in directing them north into the Chaco Canyon region.

The Highway Department has been placing "Gran Quivira" signs on all our highways. The signs are not as large as our regular national monument signs, but they have been placed at practically every turn in the road, and are a great improvement over the old system.

I had a talk with the archaeologist in charge of excavations at Abo. He is so bothered by visitors he is finding it quite a task to look after them. He reports the finding of the hinges used on the great doors of the mission.

All extra time on the monument this month has been used in trying to keep ahead of the tumble weeds. They seem to thrive best on the graveled parking lot.

*****SWM*****

WHITE SANDS

By Tom Charles, custodian,
Alamogordo, New Mexico.

Visitors this month, 22,941; total since October 1, 96,359.

Charlie Steen's revised plans for museum exhibits at White Sands arrived and I have studied them as time permitted. One thing that worries me is how Charlie is going to turn the crowd to the right as they enter the museum rooms. I can see our visitors scattering like a bunch of young turkeys and I suspect that they will be fully as hard as turkeys to get back together again.

Personally, I have never visioned how we are going to handle the visitors at the museum and under the portal. Are we to have museum trips at specified hours or are we to take the visitors as they come? Where are we to contact the cars and officially "check them in"? If we stop one car under the portal there will be half a dozen piled up there behind it and in front of it in a moment or two.

Yesterday we had approximately 150 cars into the Heart of the Sands. Of these, 62 were between 8:00 a.m. and 3:50 p.m. and there

WHITE SANDS (CONT.)

were over 80 between 3:30 p.m. and 7:00 p. m. That is one car every three minutes. But they are not so obliging as to come so evenly spaced. They may go for 15 minutes without a car and then come in droves of eight or ten. The cars will average about half a dozen occupants and up. Yesterday we had a bus with 41 children and two grown-ups. While another enthusiast came all the way from El Paso with 17 children in an open trailer, attached to a passenger car. As far as crowds are concerned, there is no trouble with them in the Sands. Let them come in dozens or hundreds or thousands. It makes but little difference. But when one of these Sunday afternoon crowds is dumped onto a lone museum man, I fear that he may soon find half of them on top of the house or in some equally inappropriate place.

When I came in from the Sands last night at 8:30, Dave was struggling with the Winklers--Dr. Winkler, who teaches sociology at Texas State, and in charge of the summer school there, his son who has recently received his Doctor's degree, the wives of the two gentlemen, and two young daughters. They were an interested group. Protective coloration, plant acology, geology were the subjects of greatest interest. Dave and I are not so good on those scientific questions but we struggle and when I came onto the scene Dave pictured a strenuous afternoon with the laconic remark, "Well, Tom, they have surely run over Joe and me today." Personally, I cannot get the contact plan. Even though the Winklers come at 8:30 in the evening, it is going to be our obligation to show them the museum. And the Winklers are typical of about 75% of our visitors.

Mrs. Lewelyn Lloyd is our champion long-distance visitor. She came 19,000 miles from South Rhodesia to see Yellowstone, Yosemite, Bryce, Grand Canyon, White Sands, and Carlsbad. It was interesting to me to find Miss Jane Cashier, with her father and sister, from New Rochelle, who came all the way from New York to see the White Sands and the Caverns, and to hear her say she had been around the world three times and never had seen anything which so thrilled her as the Great White Sands. And it adds a bit of human interest to know that Miss Emma L. Rutz, of Fort Lapwai, Idaho, gave a school girl friend a trip from Seattle, Washington, to the White Sands as a reward for certain scholastic standing.

This report is already top heavy with "crowd", but the reporter does not make news; he records it. We portray the condition. Joe's count was badly broken into this month. He took five days out of the middle of the month to take a used car to Coolidge. When he was home he didn't have nearly as many hours to count cars as last month, but the hours that he did count showed a marked increase. Last month he had an average of 3.18 cars per hour in the heat of the day, while this month is shows nearly 6 cars per hour and the last week it has climbed to $7\frac{1}{2}$ cars per hour. My two-hour count each evening last month showed 14 cars per hour, while this month we have had an average of 19 cars per hour each evening. The registration book shows a corresponding increase. A total of 3,901

WHITE SANDS (CONT.)

visitors registered in the Heart of the Sands this month--1,060 more than registered last month--under exactly the same conditions. If you will accept our last month's record of 17 per cent registration, which I can see no reason to change, it gives us 22,941 visitors for the month.

That is the best estimate that I can make; it may be too high and it may be too low. Barry Mohun's percentages will run it up more than 20 per cent. I still believe that the best investment that could be made at White Sands today is an electric counter. It seems to me poor business to build up a plant on an estimate of travel and have the thing twice too big and it is fully as short sighted to build it upon an estimate and have it half big enough.

So you see, it is quite natural that my report should be, visitors, visitors, visitors. Every one of them a pleasure, wanting to do just what we want them to do. Each one expressing interest in every bit of information, all amazed, thrilled, enthralled at the Great White Sands. Even our Associate Director, Mr. Demaray, who has fed on thrills and national attractions for so these many years, climbed a modest hill and exclaimed, "I'm thrilled. You have a 'knock out' here".

The grade on Federal Highway No. 70 is practically completed in front of the headquarters building. Several nice rains have kept the dust down in more or less a satisfactory degree where dozens of trucks are working.

Work on the RD division seems to be progressing nicely. Joe and Johnie have gone to Oklahoma City for two new trucks and for the next week the Custodian will be the "personnel" at the Sands.

It would be quite improper to close the report without mentioning our distinguished visitors this month. Associate Director Demaray and Acting Regional Director McColm each visited the Sands for the first time, while Hugh Miller, Jack Diehl, Harvey Cornell, Vernon Randau, and Dr. McDougal each made one of their usual visits. Jack Diehl has a three-man crew here running a preliminary line from Dog Canyon for our proposed water system. Joe and I took the brass collars over to the old lake the day Mr. Demaray was here and had a quite successful trip, as neither car got lost or stuck. But on account of recent rains, we deemed it unsafe to go out closer than some five or six miles to the water and we had to forgo the pleasure of showing the Director the area which Governor Otero described some fifty years ago as "The Playground of the Mirage". I shall have to continue to prove the existence of the pastel pictures on the surface of the old lake by Hugh Miller, who saw the mythical ranchos so plainly that one had an urge to stop and pet the horses. I hope that Hugh will not fail me on this.

*****SWM*****

WALNUT CANYON

By Paul Beaubien, park ranger,
Flagstaff, Arizona.

Visitors this month, 2,827; total since October 1, 11,613.

There were 835 cars, 17 camping parties, and 53 picnic parties. About 1,544 were contacted at the ranger cabin, and 473 at the Observation Point. None of the above figures are accurate, but they're the best I can give.

July 27, Al Keuhl went over the canyon trail with Project Superintendent Parker and Student Technician Reeves. On July 28, the proposed development areas were visited by Associate Director Demaray, Hugh Miller, and Al Keuhl. Next day, Earl Jackson brought a museum display case. August 18 and 20, Dr. W. B. McDougall inspected the proposed wild-life buffer area adjacent to the monument. On the latter day, he was accompanied by Mr. Gambrell of the State Fish and Game Department. August 23, Jack Diehl stopped for an hour or two. August 24, J. H. Tovrea and Al Keuhl arrived. They selected the site for the Custodian's residence and inspected the stone quarry. As this goes to press, Tov. is staking out the sewer line.

Of course, the important news for this month is that the CCC boys have arrived. They have been working on roads and trails, quarrying rock, finishing the buildings about camp, etc. Now that the building stone has been approved and the house staked out, actual construction will begin shortly. With a few more projects, such as parking area, entrance road, and picnic area approved and staked, the boys will have plenty to do.

There have been two forest fires, ignited by lightning, to report. Both were on the other side of the canyon. The first was reported on a rainy afternoon, July 25. I crossed the canyon about 4:00 p.m., didn't find the fire, got wet, got lost, and it was dark by the time I was re-crossing the canyon. The next morning was clear, and the smoke could be located from this side. I then turned the fire over to Clay Parker. His boys made several trips to it. Only a small area was involved, but it took some time to burn out.

The other fire was near the center of the monument. Three Forest Service employees and myself reached it early in the afternoon, and it was soon under control. Two men stayed with it that night, and another man stayed the next night. Only about one acre burned, but there was a lot of smoldering litter that had to be watched.

In all, I made four trips across the canyon, and those eight crossings sort of cooled my desire for boundary extensions on the other side. There are some places I can cross the canyon the first time in an hour, but it takes much longer to return. This winter I hope to do a bit of

WALNUT CANYON (CONT.)

exploring to see if it is possible to get a car around to the other side in an hour or less.

Mr. Parker sent boys to a number of fires in the Sunset Crater area.

*****SWM*****

HOVENWEEP

By Alfred Peterson, park ranger,
Cortez, Colorado.

Visitors this month, 20; total since October 1, 160.

More than half of my time since submitting the last monthly report has been spent at Aztec Ruins National Monument doing relief guide duty. I left Cortez and arrived at Aztec on July 30. July 31 to August 7, inclusive, I was on duty at the ruins, leaving Aztec on the eighth. I returned to Aztec again on the afternoon of August 17 for a week's duty. But upon the request of Custodian Miller, I am remaining through Sunday, August 28, in order to be here while he is in Gallup attending to the exhibit at the Ceremonial.

I made trips in to Yucca House on August 8 and 17, and the usual "few cars" of visitors were reported by Mrs. Ismay. Having been away so much of the time, I am not in a position to report accurately on the visitors at Hovenweep. But I have contacted several parties and learned of others. As nearly as I can figure, there were about 20 visitors to Hovenweep since last report. Four of these included a Division of Grazing man who went to Hackberry and passed by the Square Tower Group. Four more were in a Massachusetts car (one lad was from New York), and I enjoyed showing these boys around the Square Tower Group. Two more were from St. Louis, Missouri, and they camped over night. I contacted two more Missouri men in Cortez as I was leaving for Aztec, and gave them information and directions. Upon my return to Hovenweep, I found that a man and a woman had been in on horseback and lunched the day before. That same day I followed the tracks of a car that I thought was lost, since they had turned off on a homesteader's road that is misleading. That driver knew the roads better than I did, because he followed an almost invisible old trail right in to the Square Tower group from the back way. Apparently they had not stopped more than a few minutes, but went on to the road to Bluff. I learned from Mrs. Ismay that there had been a Texas car "full of people" who asked about the road to Bluff. And this last time I was leaving Cortez for Aztec, I learned that two Division of Grazing officials had gone out to Hovenweep.

The McElmo Canyon road has not been so good lately. The new road work has turned to dust for the lack of rain, and the going is difficult. Mrs. Ismay told of one Iowa car that turned back at their store when they

HOVENWEEP (CONT.)

learned that the roads were no better on to Hovenweep than they had been back on the McElmo Canyon road. We went to Cortez for mail and supplies after lunch on August 12, and the deep dusty ruts made the old Dodge boil. After cooling and adding water to the radiator, we struggled through. Coming back that night it rained cats and dogs and it was just too much, even with chains on, so we spent the night in the car beside the road. When morning came, we were unable to get across the Yellow-jacket Creek until noon.

While waiting for the Yellowjacket to lower, we explored the stone-slab structures on top of McElmo Bluff described by Fowkes in Bulletin 70. The pottery I collected looks to me like the Basketmaker III pottery Dr. Paul Martin is finding around his 81-foot "kiva". I shall compare my sherds with his sometime soon - I hope.

When I was following the "lost visitor" car, I stopped to examine briefly two small ruin sites out in the flat sagebrush country near Square Tower. A section marker nearby told me that these sites were on the south central part of Section 20, Township 39 South, Range 26 East, Utah.

On July 28, Cal Miller and family came along about noon, just as we were about to leave the school house for the Square Tower Group. We had taken the morning off because something we had eaten the day before had not agreed at all, at all. That was the only clear day that we'd ever had lunch at the camp, since we prefer the tree near Hovenweep Castle. We went to Hackberry Group to check up on the dead sheep and tin cans of the sheep-herders' camps. On June 26, I had buried two sheep and a bushel of cans and old clothing, and discovered another sheep as we were leaving. Too late to bury him, so Cal and I buried him on this trip, together with more cans found in the grass in the canyon.

In the North Fork of Ruin Canyon I had found, in an inconspicuous place, a good wheel-barrow load of tins and bottles that had been dumped over the canyon wall. On Sunday, August 14, I buried them lest they be an eye-sore at some future time. All groups now in good condition until the sheep-herders come again.

*****SWM*****

BANDELIER

By C. G. Harkins, custodian, Box
669, Santa Fe, New Mexico.

Visitors this month, 3,355; total since October 1, 12,809.

There is no complaint to be made about the weather this month, other than the lack of precipitation, since the average temperature was slightly

BANDELIER (CONT.)

higher than the rest of the summer months. The heaviest precipitation came on August 5 with a total of .15 inch.

The roads have been corrugated in spots on the Ramon Vigil Grant, but the road through the Otowi Section has been maintained in the best possible condition, also the road leading to the Los Alamos Ranch School. Santa Fe and vicinity have experienced some heavy downpours this month, washing out the highway leading to Bandelier in the neighborhood of Pojuaque where the road leads down the Pojuaque and Tesuque arroyos. Several cars have gotten stuck, including the bus which, and he should have known better. The others were mostly inexperienced persons living outside the state and who never know when an additional wall of water will descend upon them.

Following is a summary of the weather the past month:

Days clear- - - - -	-11	Mean maximum- - - - -	-91.58
Days cloudy - - - - -	9	Mean minimum- - - - -	-59.03
Days partly cloudy- - - - -	-11	Mean- - - - -	-75.30
Maximum temperature - - - - -	-99	Precipitation - - - - -	.56
Minimum temperature - - - - -	-45		

The extremely dry weather of the past month has caused the creek to dry up from the vicinity of the Ranger Station down to the river. This has caused the loss of some fish that had worked down from farther up the canyon. These consisted mostly of fingerlings recently planted.

Recent inspections of the Otowi Section reveal that there is less trespassing from stock this year than ever before. The range is in excellent condition due to several heavy rains in that area. Repairs to the fences on the Otowi Section have been effected as time would permit.

A campfire talk was given by Ranger Spuhler to 75 members of the Round-Up Lodge group. This talk was given in the camp ground and greatly enjoyed by the boys. This is a feature that needs some study and also can be made very interesting.

The remaining glass to completely enclose all specimens in the museum has been received and is being installed at this writing. This completes the museum with the exception of the exhibits in the third room which we hope to have installed some time this year.

Two fire hydrants have been installed in the residential area--one near quarters No. 1 and the other just beyond the ranger dormitory. Cabinets have been received and installed on all the flamo units.

A survey party from the Regional Office, with Mr. Shirley in charge, arrived in the monument July 27, to set alignment stakes on our entrance road in preparation for the surfacing. Bids were opened in Washington

BANDELIER (CONT.)

August 11 for this project, with W. W. Barton & Son, of Hatch, New Mexico, the successful bidder. They have been here several times making arrangements for a camp and are ready to go to work soon as a work order arrives from Washington.

Our travel consisted of 3,355 people, in 1,067 cars, from 38 states and 5 foreign countries. Trips through the ruins, averaging 9.7 to the party and 106.4 minutes to the trip, were made by 1950 visitors. Museum attendance showed 923 visitors with an average attendance per party of 8.4 and each party remained in the museum on an average of 21.5 minutes.

Four more cats were destroyed that had been wished onto the monument.

Ranger Spuhler spent four days the past month on the community house, finding the levels of each individual room. After these were ascertained, a plot of the ruins was made and the levels taken to be used in the construction of a model for display either in the museum or office lobby.

Business men in Santa Fe have complained all summer about the decrease in travel, and lay the cause to the completion of Highway 66 east from Albuquerque. One oil company in particular stated that they showed a loss in sales of 30,000 gallons of gasoline for the month of July over a like month in 1937, while the same company in Albuquerque showed a gain of a like amount during the same period. There is considerable talk in Santa Fe of establishing a Highway 66 north from Albuquerque and attempting to regain this lost patronage. Should this highway become a reality, we can expect an increase in visitors, providing the entrance road to the monument is given its share of repairs, or at least maintained in a passable condition.

NATIONAL PARK SERVICE VISITORS

Lyle E. Bennett, associate landscape architect; Mr. Carl P. Wells, electrical engineer, Degree III; Mr. and Mrs. Homer Hastings and family, from Chaco Canyon; Mr. and Mrs. Hugh M. Miller, from Coolidge.

*****SWM*****

BANDELIER CCC

By H. B. Chase, project superintendent,
Box 369, Santa Fe, New Mexico.

The Lobby and Sales Room building is now completely decorated and painted, with the exception of one small heater room which has been held in a semi-finished condition awaiting the final decision regarding heating units. All electrical wires have been pulled and outlets completed with trim, with the exception of lighting fixture installations which will be installed upon completion of our hand made tin fixtures designed for this building. During the recent trip of Mr. Ahern, together with the

BANDELIER CCC (CONT.)

architects and Assistant Superintendent Miller, a fuel oil heating system was decided upon and after complete approval of the plans and project, this building will be brought to 100 per cent completion.

The Operator's Residence within the Hotel Development is now plastered up to the finish coat. At this time the plastering crew is completing this work, making ready for final finish of opening installations and complete construction.

Cabin "A" of the Operator's Development has been completed to the point of interior finish. Roof construction is now 100 per cent complete, all exterior and interior walls in place and flagstone floors to the point of final grinding.

The wall construction of Cabin "B" is completed to specified height, aspen ceilings are in place, and roof construction is in process at this time. Rough plumbing installation will start immediately, together with inside partitions which will bring this group to completion status within the coming month.

The carpenter crew has completed all door openings for the residence and the two cabin groups ready for installation. In connection with this class of work they have finished the dining room tables ready for staining. Considerable work has progressed on the dining room chairs and a small amount of directional sign work has been carried on with the shop force.

Installation of the power line was completed during the month together with junction and feeder lines to all completed units of the hotel development. Receipt of this class of material will allow us to install the services to each unit as it goes up in the future.

Preparation of building stone in the Rock Quarry has been going forward all month. A considerable quantity being quarried for both wall and floor construction.

*****SWM*****

CANYON DE CHELLY

By Johnwill Paris, custodian,
Chin Lee, Arizona.

Visitors this month, 362; total since October 1, 1,305.

August was a most interesting and eventful month. Visitors show a total of 362, coming in 82 cars. This is a slight gain over the same month last year. The early part of the month was very slow, but the past week people coming to the snake dances and Gallup Ceremonial have

CANYON DE CHELLY (CONT.)

poured into de Chelly.

I want to congratulate some source for the new SWM 16. Personally, I like it much better and feel certain it will give a more detailed report in the end. It works much better for us at least. Our special report on parks visited is received very well except question three. Most visitors throw up their hands in horror on that one. We trust they are being handled properly. By the way, is it fair for two Custodians to pick on de Chelly at once? I truly believe I can understand why and I expect to add McKinney to the list now. The boys only need to realize what we have until the green-eyed monster grabs them in his clutches and they just have to burst out now and then. It probably makes the boys feel some better and I don't mind. So I guess all is well. I do envy one of the boys on the duties he gets from his H.C.W.P. I do well to get mine to cook.

August, as a whole, has been very dry even though we have had some moisture. It seems as if it has rained all around us but very little right here. There is not much water in the Canyons. Of course, the dry weather has been favorable to roads and so only a few days of slick roads.

Speaking of roads, the CCC has been doing some hard work on our roads and it helps a lot. Several curves have been widened and bad bumps smoothed out.

The Indian Service is hauling rock from our quarry at the White House and that keeps the road some better.

Many of our visitors have been from our own Service: Caywoods, McKinneys, Margie Smith. In addition, Mr. and Mrs. Mattingly, of the Bureau of the Budget, Harold Getty and several professors from the University of Arizona, Dorothy and John Keur, Thelma Springstead, and many others visited the monument. Superintendent Fryer and other officials of the Indian Service were welcome guests.

*****SWM*****

PIPE SPRINGS

By Leonard Heaton, acting custodian, Moccasin, Arizona.

Visitors this month, 315; total since October 1, 1,942.

Another month has rolled by, bringing its ups and downs--mostly ups so far as the work at the monument is concerned. My health the last two weeks has been on the down side. Two weeks ago I caught a cold that has settled in my left ear and affected my hearing so that I have had to make two trips to the doctor and take $1\frac{1}{2}$ days of sick leave. Today, I am

PIPE SPRING (CONT.)

feeling some better, though not entirely over my trouble.

The travel for the month of August through the monument has been better than for some time, also the use of the camp ground area. The meeting of the Stockmen and Division of Grazing range men brought a lot of visitors on the fifteenth and sixteenth to the monument. They were dividing up the range according to what each man was entitled to use and the number of stock he could graze on the range.

Total visitors guided, 117--just two less than for July. Campers and picnickers, 70; runarounds or users of the monument, 128; total visitors and travelers, 315.

The weather man has been dealing us all kinds of weather the past month, continuing with hot and dry winds from last month. He switched and gave us a good rain the evening of the fifth which did some damage to the roads and camp area by flooding over the banks of the diversion ditch. Again in the night of the sixth we got a lot more water which did a lot more damage, filling up a lot of the irrigation ditches and leaving a lot of sand in the diversion ditch. Also the rain came down so fast that the water could not run from between the houses fast enough, so part of it had to come through the cellar and out through the front door. Again on the eighth we had four good showers, causing water to run. But no damage was done by these rains.

Since then, we have had ideal weather--night almost too cool for comfort. Frost was reported on the mountains the fifteenth and sixteenth, as well as a lot of hail during the storms. We have had five stormy days, 14 partly cloudy days, and 11 clear days the past month.

CCC

On August 12, I finished up Project No. 7, Ditch Elimination, as far as it has been approved in the past. On the fifteenth, I started the crew of six men digging the trench for the pipe line job which is about completed. I hope to have this job completed by the thirtyfirst.

Also had the boys do some cleanup after the flood, removing sand from the diversion ditch and trash from the road. There is still some work to be done before the cleanup is complete.

Took out the old pit toilet just north of the road on August 18 and 19. Makes the place look a lot better.

Al Kuehl and J. H. Tovrea came in on August 8 and spent part of the afternoon in going over the pipe line and other problems of the monument. Detailed plans were made of the pipe line job. A rock and cement culvert 2' x 8' was suggested to replace the two 18" metal culverts now in the drain ditch so that all the water can get through

PIPE SPRING (CONT.)

without running over the road as it did the last stormy spell. The planting of trees this fall around the residential area and ponds, bracing the southwest corner of the fort where it is gradually moving out, and fixing the steps into the lower house so that the water cannot run in from the rains were among the problems discussed with Mr. Kuehl and Mr. Tovrea.

On August 16 I stopped the CCC trucks from using the service road east of the meadow. The trucks **were** having to use this road because the Commanding Officer would not let them use the company street. But they are using it now.

Was glad to have Al and Tov in again, as I was getting rather lonesome for some Park man to show up and kind of spur me on to doing better work and give me some new ideas to think about.

In closing, will have to admit that I still have my problems to meet here at Pipe Spring in keeping up my work--both the CCC and regular monument cleanup. Visitors and unguided records give me trouble. I can't seem to make them come out right as to where the visitors should be counted.

*****SWM*****

MONTEZUMA CASTLE

By Earl Jackson, custodian,
Camp Verde, Arizona.

Visitors this month, 1,696; total since October 1, 9,490.

During the month 36 states, Washington, D. C., and one foreign country were represented. Visitors arrived in 447 cars, on five horses, and one on foot.

SPECIAL VISITORS:

Park Service: July 27. Associate Director Demaray and Assistant Superintendent Miller arrived together. The Custodian took them on an inspection tour and visit to the Castle. And while in the building, details of the proposed stabilization were discussed. Their two and a half hour stay was very instructive and enjoyable.

August 10. J. H. and Polly Tovrea dropped in for a few minutes.

August 12. H. H. Cornell, regional landscape architect, and A. C. Kuehl, assistant landscape architect, came together for an inspection. They brought a good rain with them. Al says they follow him.

MONTEZUMA CASTLE (CONT.)

August 23. Regional Engineer Jack Diehl, accompanied by his wife, paid a visit. While he was here we went over proposed stabilization in the Castle.

Other Visitors: August 6. Dr. M. M. Ellis, in charge of Interior Fisheries Investigations, U. S. Bureau of Fisheries, was in with his wife and six bio-assayists. (More about them under Museum and Education). Isabella Greenway, former Congresswoman from Arizona, was a visitor.

August 14. A motorcade of 20 people from Williams, Arizona, picnicked and saw the Castle. In charge of the party was H. A. Kendall, assistant supervisor of the Kaibab National Forest. With the party were R. W. Hussey, supervisor of the Coconino National Forest, Ranger Harold Linn, of the Beaver Creek Ranger Station, Charles Proctor, president of the Williams-Grand Canyon Chamber of Commerce.

WEATHER AND ROADS:

Precipitation- - - - -	3.27	Minimum temperature- - - - -	51°
Days cloudy- - - - -	5	Mean maximum - - - - -	96.1
Days partly cloudy - - - - -	17	Mean minimum - - - - -	62.5
Maximum temperature- - - - -	110°		

With an unusual amount of rainfall, the country is in good condition. An exceptionally heavy amount of rain fell on August 13, which seems to have hit a considerable part of the state, caused some road damage, and some slides on the highway just this side of Jerome. Some bad washouts occurred on the Cornville approach road, and a few other places, but travel was not stopped, and was hampered for only two or three days. Roads are now in better condition than usual.

Construction is still under way on the Cornville road. On Highway 79 a new bridge is almost finished. This bridge will eliminate one of the worst curves on the entire highway. Camp Verde is paving its main street with the aid of W.P.A.

On the approach road to Montezuma Castle from the highway, our new oil job stood up all right. Two culverts were almost filled up with gravel and sand, however, and constitute a difficult problem.

On August 9 Beaver Creek started running again past the Castle, after having been dry all summer. The creek was in fair flood on August 13, the first flood this summer.

MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTION

Pressure of the heaviest tourist travel in several years has prevented any but routine clean-up work in buildings and on grounds, and very little additional.

MONTEZUMA CASTLE (CONT.)

A damaged tailgate on the pickup truck was re-welded.

A hole was drilled in the aquarium for the museum, and piping was installed to carry running water through it.

The gasoline pump was removed and a leak repaired. This leak had been underground, and had entailed considerable loss of gasoline before it became apparent.

Incoming highways to the north were patrolled for the purpose of establishing where signs were needed, and several new signs were ordered.

About a day's time has been spent pulling exotic thorn weeds, "*tribulus terrestris*").

A rattlesnake skin was prepared and installed as an exhibit in the museum.

PERSONNEL

During the month the Custodian made one trip to Walnut Canyon National Monument, delivering a museum case to Paul Beaubien, and while there, taking Paul's Nature Trail walk. Cannot say that the ruins were particularly impressive, but thought that as a nature trail the walk was fascinating. Paul has got out some might interesting labels on the geology and the plants. Had quite a chat with Paul, and got some worthwhile pointers from him. Wish we had a good prospect for a natura trail here. Think I'll start one anyway.

MUSEUM AND EDUCATION

On August 1 we added to the museum study collection an immature Western Diamond Back Rattlesnake (*Crotalus cinereus*?), making a total of three pickled snakes and one stuffed specimen for the museum.

On August 19 Ranger Alberts found a large diamond back rattlesnake about 100 feet from his tent house. He and my brother captured the creature, and we dispatched it with chloroform. It was a female, measuring four feet and three quarters of an inch long. The skin has been tanned in our home laboratory (the basement) and now reposes on felt on the museum wall. This is our first museum acquisition of a tanned snake skin.

The skull of this rattlesnake will be mounted when I can get to it, so should not yet be considered an acquisition.

In the last monthly report, I mentioned that some of our textile specimens contained a fiber which most closely resembled that of the basswood tree. Since that time, Mr. Volney H. Jones, assistant curator, Ethnobotanical Laboratory, University of Michigan, has examined the

MONTEZUMA CASTLE (CONT.)

specimens and states in a letter that the fiber was not basswood, but appears to be all cotton and/or yucca. At the request of E. H. Doolan, of the Denver Art Museum, who initiated the study of the castle, Mr. Doolan forwarded the specimens to Dr. A. C. Whitford, of Alfred, New York, for further examination.

Under the visitor list in this report was mentioned the visit of the Interior Fisheries Investigator, Dr. M. M. Ellis. The principal purpose of the visit of his party was to make chemical analyses of the water in these streams and of the body chemistry of the fishes inhabiting them, to better establish what types of fish are best suited for this locality. Incidental to this work was identification of fish species. The custodian assisted the party during one day to catch different varieties from nearby.

On a later day, (a day off) the Custodian and wife obtained from several miles upstream some fish which, it appears likely, may turn out to be Dace, and forwarded them to Dr. Ellis' laboratory in Columbia, Missouri, for identification. We have not heard the report yet.

During the month about 15 new plants were collected for the herbarium.

GENERAL

We have been quite busy during the month handling the heavy tourist travel. We have had so many large groups of people that the museum has received a little less guide service, this same service being added to the field trips. Since we now limit the number of persons climbing the ladders to nine in a group, it frequently happens that large groups will be waiting or sitting at the park bench in front of the Castle. So, while one guide is busy in the Castle, the other frequently gives a lecture on the ground, contacting up to 25 or 30 people that way. But while this happens, sometimes a small group of three or four people will visit the museum unattended. All in all, however, we give service to more people this way during rush hours. It is in a case like this where a temporary summer ranger would be worth his weight in gold.

General conditions in the valley are looking better. On August 4 or 5 the Phelps-Dodge Corporation rehired a lot of men who had been laid off. Additional W.P.A. work is aiding Camp Verde and immediate vicinity. One of our large guest ranches up Beaver Creek is doing over \$7,000 worth of improvements this summer, and a number of nearby men are working there.

*****SWM*****

CHACO CANYON

By Lewis T. McKinney, custodian,
Chaco Canyon, New Mexico.

Visitors this month, 650; total since October 1, 5,126.

Things have been humming pretty well out here in the old Canyon this month. We have had a few pretty good showers, enough to keep the heat down to a liveable temperature and the grass growing. The nights have been cool enough so that the Custodian could get in a swell night's sleep. Lots of nights I have sat up and enjoyed the cool evening breeze until away after seven o'clock. In the mornings I'm never up before 5:00 or 5:30.

UNIVERSITY OF NEW MEXICO

Have certainly been doing some nice work in the Canyon this year. (Well what else could you expect when there is a Park Service man in charge of their digs?) Dr. Brand is in charge of the field school, of course, with Dr. Arthur Kelly in charge of the excavating. In addition to their regular members of the university faculty, they have with them Dr. Ernest Antevs, Carnegie Institution of Washington; Dr. Clyde Kluckhohn, Harvard University.

VISITORS

The people in the Canyon certainly enjoyed the long visit by Dr. and Mrs. Keur. They arrived in the monument early in the month, were out for a few days visiting the Springsteads and other acquaintances. They have returned to the Canyon, however, and will be here until after the archeological conference the latter part of the month.

Mr. and Mrs. John J. Raskob and two children were visitors this month, not taking the time, however, to look the place over.

James W. Watt, from the Public Health Service, stopped in again to give the Canyon the once-over.

Six of the Soil Conservation Service employees are in the Canyon today (August 24) looking over future proposed work in the monument.

Mr. and Mrs. James Brewer, of Aztec Ruins National Monument, came to look the Canyon over again so that they wouldn't forget what a real ruin looked like.

WEATHER

Maximum temperature was 101° on August 1. Minimum temperature, 44° on August 20. Precipitation 1.82 inches (enough to take this year's bath). There were thirteen clear days, three cloudy, and the balance

CHACO CANYON (CONT.)

were partly cloudy.

ROADS

The roads are in better condition at present than they have been in the past two years.

SOIL CONSERVATION

The Soil Conservation Service has certainly been working hard and fast on plans for future work in the Chaco. One of their small structures went out, but was no fault of theirs. Cause: one of our little rodents digging big holes.

*****SWM*****

MOBILE UNIT

By Gordon Vivian, foreman,
Chaco Canyon, New Mexico.

Since our last narrative report there have been expended by the Mobile Unit 456 man days, divided among six projects as follows:

<u>No.</u>	<u>Job</u>	<u>Man Days</u>
1016-1	Drainage	60
1016-3	Capping	78
1016-4	Support	165
1016-5	Wall Patching	26
1016-22	Waterproofing rooms.	111
113	Pit toilets	16

All camp and maintenance details have been prorated and are included in the above totals. Due to the heavy rains the past few weeks these details have been larger than is usual in the summer months. Among jobs undertaken were repair to the office roof and cooperative work with the University of New Mexico to keep the approaches to the bridge across the Chaco passable.

A summary of the type and amount of work done under each of the above headings is as follows:

DRAINAGE

Rooms 91, 92, 112	60 sq. yds. plated with stabilized mortar
Rooms 64, 65, 66	32 sq. yds. plated with stabilized mortar
Rooms 115 to 117	8 cu. yds. removed for exterior drainage
Room 62	4 sq. yds. sprayed NPSX waterproofing solution

MOBILE UNIT (CONT.)

Room 238	3 sq. yds. sprayed NPSX waterproofing solution
Room 285	21 sq. yds. sprayed NPSX waterproofing solution

TOTAL: 92 sq. yds. plated and drained; 8 cu. yds. removed; 28 sq. yds sprayed. 60 man days.

Rooms 91, 92, 112 are three closely connected rooms which have not been excavated as deeply, by 4 to 8 feet, as those they adjoin; namely, No. 109 and 110. These lower levels have been subject to destructive washing and seepage from the less excavated rooms. Since it was not possible to drain the accumulated water from these three rooms out into the west plaza nor outside the ruin to the north they were plated with stabilized mortar and dry barreled into the northwest corner of 112, as far away as possible from the lowest levels of 109 and 110. The dry barrel, 5 feet in diameter, was carried to a depth of 14 feet, well below the floor levels of 109 and 110.

Rooms 64, 65, 66 are so located that water falling in them washed through the walls of kivas K and L. Since the bottom of L is some 20 feet below the floor levels of the rooms to be drained, it was impractical to dry barrel them so they were plated with stabilized mortar and the drainage carried off through tile and open plated ditches past K, through the narrow corridor 283 and out into the open plaza.

At the west side of the pueblo, a bank of wind blown material had turned drainage from the area to the north in against the exterior walls of rooms 115 to 117. Eight cubic yards of this material were removed and the area immediately adjacent to the walls sloped.

Areas of plaster exposed in clearing the kiva corners in three locations, Nos. 62, 238, and 285, were sprayed with the NPSX transparent waterproofing solution. Application was with a portable gasoline powered compressed air spray. Spray applied from a distance of a foot and a half at a pressure of 30 pounds. The total of 28 square yards was given two applications. At a later date, a third and final application will be made.

CAPPING

Rooms 114 to 117	42 sq. yds. in two course stabilized mortar
Kiva C	14 sq. yds. of flagstone in concrete.

Total: 56 sq. yds. capping, 78 man days.

On rooms 114 to 117 a two course stabilized mortar capping was laid over the wall support work and re-spalling completed last month. On the south curve of Kiva C the single slope capping in place there was replaced with a stepped type capping of flagstone laid in concrete mortar. This adds to the appearance of the outline of Kiva C as seen from the

MOBILE UNIT (CONT.)

plaza and makes it possible to conduct trail parties who wish to reach a higher elevation in the pueblo over this section of the site.

SUPPORT

Rooms 121 and 122	4 sq. yds. repair to foundations
Room 96	2 cu. yds. extension to second story fragment
	12 sq. yds. re-spalled
	1 sq. yd. capped
	1 sq. yd. repairing small pole holes at base of second story
Room 258	3 cu. yds. concrete cored support wall
(incomplete)	3 sq. yds. stabilized mortar repair
Room 241	4 cu. yds. concrete cored buttress wall
	3 cu. yds. adobe mortar, rubble fill
	9 sq. yds. stabilized mortar capping over completed work
Room 242	
(incomplete)	3 cu. yds. concrete cored buttress type
Total:	6 sq. yds. surface repair; 9 cu. yds. concrete; 5 cu. yds. adobe mortar; 10 yds. capped; 12 sq. yds. re-spalled. 165 man days.

The work on rooms 121, 122 consisted of replacing four yards of surface stone which had softened and sloughed out. In room 96, where the masonry is composed of large blocks of soft stone separated by wide bands of spalls, the spalls had weathered out, leaving strips of exposed adobe mortar between the blocks. The second story wall in this room consisted of a fragment on the east side, poorly supported on the first story and undermined at its base by a series of small breaks where the ceiling poles of the first floor had rotted out. Support of this wall was accomplished by extending the base of the second story wall to a slight extent, repair of the pole holes, re-spalling 12 square yards of wall surface, both lower and second story, and capping the new work.

The east walls of rooms 241 and 242 are being done together as one unit since success of the work in 242 depends upon, to a great extent, the strength of the buttress wall in 241 against which it rests. We are confronted here with a sheer break in the wall of 20 feet, from third to second story, roughly, in room 242, and in 241 another drop from second to first story. That in 241 was repaired first, a concrete cored buttress wall built against the fragment which supported the portion of second story wall under the 20-foot break in 242. With the concrete core in 241 complete, all weathering surfaces were covered with a capping in stabilized mortar.

After this had set, buttressing began from second to third story in 242. It is still in progress. To date, one reinforced concrete lintel has been poured over a doorway and three cubic feet of concrete cored

MOBILE UNIT (CONT.)

wall have been built up against the overbalanced third story wall.

In room 258 the second story has been built out overhanging the first so that all one side of the second story wall for a width of 6 to 8 inches is unsupported. To date, the only work completed on this job has been to construct the concrete bases on which will rest the steel beam to be placed under the unsupported portion of the upper wall. One of these rests has entailed considerable work, necessitating the repair and placing of a concrete core in a considerable portion of the east wall of 258.

PATCHING

East side (incomplete)	5 sq. yds. of wall surface
Kivas V and W	
Room 64	2 cu. yds. fallen wall
Room 65, 66	2 sq. yds. small random patches

Total: 7 sq. yds. wall surface, 2 cubic yards wall. 23 man days.

Patching in room 64 consisted of extensive repairs to a fragment of cross wall which had fallen in place. The main reason for repairing this wall at present is that it was in a condition which allowed accurate reconstruction and that it gives partial support to the north wall of 64. In rooms 65 and 66, small patches were put on the north, west, and south walls to complete all work there prior to drainage.

The sixteen man days on pit toilets completed the two units opened for exterior painting. This painting is now awaiting Custodian Miller's receipt of further instructions on the shade of color wanted.

The 111 man days on waterproofing rooms were spent at the direction of Custodian Miller, furthering the work on the waterproofing to rooms 1 and 6.

*****SWM*****

WUPATKI

By David J. Jones, park ranger,
Tuba Star Route, Flagstaff, Ariz.

Visitors this month, 652; total since October 1, 2,201.

WEATHER

The weather at Wupatki has been quite pleasant during the past month. A considerable amount of rain has fallen in the region, but most of it passes by Wupatki without stopping. The only real rain was

WUPATKI (CONT.)

have had was on the second when about one-half inch fell during the afternoon.

TRAVEL

As far as the visitors are concerned, this has been one of the busiest months I have ever experienced here. There has been an increase of 235 visitors over the same period last year. Why we should have such an increase is still a mystery to me. Beaubien at Walnut is kept quite busy, but no one else around Flagstaff thinks that travel is any too good.

GENERAL

We enjoyed a visit from Associate Director Demaray, Hugh Miller, and Al Kuehl on July 28. We not only had a chance to sit around and talk while they ate lunch, but a good bit of time was given to the development of Wupatki. Clyde had mentioned that he would like to see Hugh again; hence we made a trip down to the hogan. Sally was weaving a rug which attracted the eye of both Hugh and Mr. Demaray. When Sally mentioned that she would sell it for five dollars, I thought that someone would get hurt in the rush to buy it. Mr. Demaray was the winner, as he does not have many chances to buy rugs off the loom.

Al Whiting of the Museum of Northern Arizona was out several times during the month. He is interested in the ethnobotany of the average Navajo as compared to the average Hopi. The results of his work should make an interesting paper. I went along with him one afternoon to interpret Clyde Peshlakai's English.

On the nineteenth and twentieth of this month I accompanied Wildlife Technician MacDougall, Roy Gambrell, of the State Game Commission, and Paul Beaubien, of Walnut Canyon, on a survey of a possible antelope refuge adjacent to the monument. We saw three antelope in Antelope Prairie, and then the next day visitors mentioned seeing a band of about twenty in the junipers near the Forest Service boundary on the road to Sunset Crater.

The flow of the Wupatki spring has been checked several times during the month. It is as erratic as ever, and to really check the flow of the spring for purposes of the development here, the flow should be measured each day, and correlated with rainfall here at the ruin and further up in the region towards the peaks. At present, it is necessary to shut off the flow into the storage tank to obtain pressure to fill water barrels. It might be possible to carry out this investigation later in the year.

The following figures represent the flow as it has been checked this year:

WUPATKI (CONT.)

May 24	- - - - -	-960	gallons	per	24	hours
June 23	- - - - -	-595.8	"	"	"	"
July 27	- - - - -	-480.0	"	"	"	"
August 2	- - - - -	-443.5	"	"	"	"
August 14	- - - - -	-557.4	"	"	"	"
August 21	- - - - -	-493.7	"	"	"	"

I would judge that the supply of water is from a comparatively shallow source, since there is so much variation. The very local rains, however, do not affect the flow for at least three to five days afterwards, although there is no means of telling whether the increase which follows a rain is due to a local rain or one higher up in the drainage. There is very little variation in the flow within any one day, no matter how high the temperature. Nevertheless, I shall continue taking measurements of the flow in the hope that the figures will be of use to someone who knows more about springs than I.

PUBLICITY

The Southwest Tourist News contained a short article on the Wupatki Ruins, and other Southwestern Monuments along Highway 66, during the last month.

In talking to one of the "Hostesses" for the Chamber of Commerce in Flagstaff, I discovered that they had been sending a good many people to both Sunset and Wupatki. However, I have received only one of their introductory cards. People seem to be reluctant about showing them. In order to check upon the number of people who are sent out by them, Miss Dorothy Peach is going to make a list of people they have routed through Wupatki and I am going to check it with the register.

MAINTENANCE AND CONSTRUCTION

On July 2 we had a miniature flood in the kitchen. It rained about half an inch during the afternoon and a puddle of water broke through the ceiling and covered the kitchen floor. No sooner had we gotten it well under hand than friends of ours arrived to stay overnight. Life in the country, but we managed all right.

The "refrigerator room" works fine, and has attracted a good deal of attention. The prehistoric ventilation system apparently ventilates the room sufficiently for the Electrolux.

During the month the valve at the spring was repaired and the rear window of the pickup replaced with a new glass. It ~~was~~ broken when the water barrel and pump toppled over while I was driving to the cook shack.

Fire extinguishers were refilled on August 1.

WUPATKI (CONT.)

COOPERATING GOVERNMENT AGENCIES

A group of 25 to 50 CCC boys from Camp NM-5-A have been working on the road entrance by way of the Citadel since the 18th. Their work, for the most part, has consisted of taking the rock from the road. This has been completed as far as the Citadel to date. The road is certainly improved.

On the twentieth, Dr. Harp, of the Bureau of Animal Industry, was here inspecting the sheep of the Wupatki Navajos.

NEWSWORTHY VISITORS

National Park Service: On July 28, Associate Director Demaray, Assistant Superintendent Miller, and Landscape Architect Kuehl visited the monument. R. C. Prettner, from the Regional Office, paid a short visit to the ruins on August 7. Al Bicknell and Teddy Savage, from Casa Grande, came out to stay overnight with us. Regional Wildlife Technician MacDougall and Ranger Beaubien were out on August 19.

Other: Others visiting the monument during the month include Dr. Emil Haury, of the University of Arizona; Mr. Odd Halseth, of Pueblo Grande Ruins; Congressman J. H. Peterson, of Florida, accompanied by his family; Dr. and Mrs. John Y. Keur on the fifth; Mr. H. L. Stahnke, of the Mesa Union High School; Milton Wetherill, accompanied by his mother and Al Schroeder; Al Whiting, of the Museum of Northern Arizona; Roy Gambrell, of the State Game and Fish Department; Mr. Ken Disher, of the Indian Arts and Crafts Board; and Dr. Mason Harp, of the Bureau of Animal Industry. Needless to say, we enjoyed these fellows and hope to see them here again.

PLANS

It is hoped that in the near future the CCC ruins stabilization will be under way. There are walls both at Wupatki and Wukoki badly in need of repair, as you know only too well.

The tree ring exhibit mentioned in the last month's report has not been completed yet, due to the fact that I am not completely satisfied with the log section I have, as the rings are somewhat complacent and also due to the fact that a General Office Order prevents the making of exhibits in the field. I would like to know just how this order affects those of us who have no museum, but like to try our hand at exhibits once in a while to give information where it is badly needed. Certainly we do not have the funds to transfer to the Western Museum Laboratories in order to have them make the exhibits for us.

*****SWM*****

SUNSET CRATER

By David J. Jones, park ranger,
Tuba Star Route, Flagstaff, Ariz.

Visitors this month, 1,428; total since October 1, 6,099.

Two days were spent at Sunset Crater during the past month talking to visitors and working on a map for the cover of the register box. The old one broke, and the CCC camp built a new one for me. The map is a brainstorm on the order of Reg Manning, and should direct visitors to the points of interest with no trouble at all. We are now varnishing it, and should have it in place within the next four days.

*****SWM*****

AZTEC RUINS

By T. C. Miller, custodian,
Aztec, New Mexico.

Visitors this month, 3,479; total since October 1, 17,453.

GENERAL

Aztec Ruins has experienced one of the busiest months in history, with most of the visitors guided through the ruins and through the museum. Travel is picking up on State Road 55. This road is now graveled from Cuba to San Ysidro. From San Ysidro to Bernalillo the road has been oiled. The new bridge at Bernalillo has been completed, and the visitors are using that road more this year than ever before. Two large contracts have been let between Cuba and Bloomfield. This not only brings visitors to Aztec Ruins but will bring them within twenty-four miles of the monument called Chaco--our neighbors to the south. Now, Boss, don't you think the Service could build an approach road from Highway 55 to Chaco headquarters under the Approach Road Act?

Ranger Peterson was here **seven** days on relief duty the first part of the month and is here now in the same capacity until after the Gallup Ceremonial. Our experience in the past indicates that our travel records swell by visitors making stop-overs here, **going** and coming from the Gallup Ceremonial.

WEATHER

The weather has seemed unusually warm for the month of August in this region and with much less rain. A table of weather statistics, taken from our daily records, follows:

Maximum temperature.....95	Partly cloudy days.....24
Minimum temperature.....43	Cloudy days..... 3

AZTEC RUINS (CONT.)

Clear days.....4 Precipitation..... .65

MAINTENANCE, NEW CONSTRUCTION, AND IMPROVEMENTS

Much has been accomplished on grounds during the month. All trails, grounds, and the open court in the ruins have been weeded with NYA labor. All lumber, doors, and door frames, the old electric conduit, and other signs of white-man construction has been removed from the ruins and in general it looks more like a prehistoric ruin than it did in the past. The junk pile on the north side of the ruins has been moved or eliminated. The monument in general is really getting slicked up and put in shape for the Grand Lodge, which is holding its convention in October. With all the good roads being built in northwestern New Mexico, we should have much more travel next year than ever before in the history of this monument.

CCC INDIAN MOBILE UNIT

The work being accomplished here at this monument by this organization has proceeded in a satisfactory manner. On tower No. one and six, the roof has been laid; the tin flashings have been put in place. The capping around the individual rooms that are being roofed had to be rebuilt from viga level up. These walls are being rebuilt back to the same height before the roofing job was started. This is very slow work; however, the first part of the month was carried on with a three man crew--the latter part with a five man crew. These Navajo boys are all very young and had had very little experience in laying rock. They are awfully slow but they are doing excellent work on the ruins. The past week much has been accomplished on this job. The boys have learned the art of laying the stones in place and it is believed that much will be accomplished on this waterproofing job by this time next month. We hope to have some rooms finished to report on in our next monthly report.

MONUMENT INSPECTIONS

Yucca House and Hovenweep National Monuments were inspected by me on July 28. I left Aztec Ruins 8:30 a. m., arriving Yucca House National Monument 10:35 a.m. Inspected ruins and found everything in good shape, including four new warning signs that had been erected since my last trip to Yucca House by Ranger Peterson. The signs were well made and a neat job of putting them up had been done. All gates were tied and stapled tight. I was told by the Ismays that several parties of visitors were in to see the monument during the month of July. I left Yucca House at 11:05 a.m., arriving at McElmo school house at 12:25 p.m., where I met Ranger Peterson. We left McElmo school house immediately en route to Hackberry group of Hovenweep ruins. I assisted Pete in tearing down what is known as the Bootlegger's House on top of the prehistoric wall, buried all tin cans, discarded clothing, sheep carcasses, etc. The ruin is now a little more presentable, but could stand

AZTEC RUINS (CONT.)

more landscaping. I left Hackberry and returned to Aztec Ruins at 9:20.

NEW EQUIPMENT

On July 25, we received a new 6-16 Kodak Senior in the mail, also 12 rolls of film. This piece of equipment was badly needed for official use and it is greatly appreciated.

A new 550-gallon gasoline storage tank was received, installed, and put into use on August 15. A new rain gauge and the supports for the gauge were received from the Weather Bureau at Albuquerque, August 20.

ACCIDENTS

Ben Beale, of the Navajo CCC Mobile Unit injured his thumb by striking it with a rock hammer July 26. First aid was rendered by Ranger Brewer. The Navajo boy was just a little afraid of the White-man medicine, but reported regularly until his thumb was well.

TRAVEL:

During the month, 3,479 people entered the monument in 1,012 cars, coming from every state in the union except Delaware and New Hampshire. District of Columbia and territories of Alaska and Hawaii were also represented. Foreign countries represented were England, Sweden, India, and Ireland. Personal service was rendered to 3,247 people on ruins trips. While 2,919 people were guided through the museum. Number of field trips was 315; number of museum trips, 326. For the corresponding period of last year 3,056 people--an increase of 423.

*****SWM*****

CASA GRANDE

By Albert T. Bicknell, custodian,
Coolidge, Arizona.

Visitirs this month, 1,694; total since October 1, 31,872.

WEATHER

Days clear-----	15	Maximum temperature-----	115
Days partly cloudy-----	12	Minimum temperature-----	58
Days cloudy-----	4	Mean maximum temperature-----	106.2
Precipitation-----	2.24	Mean minimum temperature-----	72.6

Except for a three day cool spell, the weather here at Casa Grande has been just about what one would expect from records of past years--hot, with frequent thunder storms and occasional high winds.

CASA GRANDE (CONT.)

A severe electrical storm occurred on the third, with lesser ones accompanying most of the rains. Rain fell on seven days during the month, six of them showing readings of more than .01 inch on the gauge stick. Heaviest precipitation was on the twentyfourth, when .81 inch fell during the night. Greatest daily range was on the eighteenth, 45 degrees. Prevailing winds were from the southwest.

GENERAL

Visitor travel fell off a bit from that of last month, totaling 110 less than for August of 1937. Average time spent by the visitors at the monument also dropped, in the same see-saw manner as has been occurring all summer. This month's average party spent 9.9 minutes less in the ruins and museum than did the average party during July.

During the month Custodian Bicknell made outside trips as follows: Three trips to Mount Elden CCC Camp near Flagstaff, with equipment for the project there; a trip to Tumacacori and Madera Canyon; one trip to Tucson, to aid in giving the oral examination required of prospective Park Rangers; one trip to Phoenix to pick up a portion of the plumbing materials for the new utility area here at Headquarters.

Ranger Eggermayer finally had the opportunity of going over to Snaketown. The trip was made in company with John and Dorothy Keur and Ranger-Historian Gertrude Hill, while the Keurs were here on their annual western trip. Most of the afternoon was spent digging the car out of the sand, however, so very little time was actually spent at the site.

Teddy Baehr, who was still unable to work at the time the last report was made, is now fully recovered from the effects of the centipede bite which incapacitated him for nearly two weeks. Teddy says that he does not fully agree with the sign in the museum which states "The bite of the centipede is somewhat painful."

NEWSWORTHY VISITORS

During the month the following Park Service officials were visitors at the monument: August 8, Frank L. Fish, custodian of the Chiricahua National Monument; August 18 and 19, Jack Diehl, regional engineer; August 17 and 22, Al Keuhl, associate landscape architect; August 21, Eric Reed, regional archeologist, and Mrs. Reed.

Other visitors of note included Mr. and Mrs. John Keur, of Long Island University at Brooklyn; Dr. E. S. Hathaway, Professor of Ecology at Tulane University, Mr. J. E. Perkins, formerly Park Ranger at Yosemite, and now graduate assistant to Dr. Hathaway at Tulane.

Another visitor of particular interest was Mr. Dan McDermott, of Phoenix, who brought his small grandson here to see the ruins on August 7.

CASA GRANDE (CONT.)

This was Mr. McDermott's third trip to Casa Grande, the first having been made during April of 1889, while he was employed in building the Picacho reservoir. He spoke of the trouble that their party had encountered in finding the ruin, as the road was practically non-existent, and also mentioned that he had in his possession a piece of wood from the lintel of one of the doorways of the building. He offered to give us his piece, a splinter of juniper, which he had kept all this time as a souvenir, meanwhile stating that some of the other members of the party had divided a cottonwood log which they had taken from the same doorway. I believe that this is the first knowledge of cottonwood having been used in the building of the Casa Grande.

USE OF MONUMENT FACILITIES BY THE PUBLIC

Total travel: 1938, 1,694; 1937, 1,804; 1936, 1,487.

Of the 1,694 visitors to the monument, 1,412 (83%) were contacted on guided parties through the ruins, the museum, or both. A total of 10,039 minutes was spent in conducting 286 parties through the ruins, for an average time of 35.1 minutes per party. In the museum, 4,543 minutes were spent with 199 parties, for an average time of 22.8 minutes.

During the month, 45 separate parties, made up of 247 visitors, used the picnic grounds. One local group, 31 people from the Church of God Sunday school class, held a picnic here August 21, and were taken through the ruins and museum. On August 24, a geography field class from the Mississippi State Teachers' College visited the monument. Other than these two groups, none of the picnic parties were other than casual tourists of local family groups.

CASA GRANDE CCC SIDE CAMP

Job No. 50, Shop: Only the wall between the shop and the oil house was completed this month. Work on the shop itself is held up until the interior fittings and shelving are received from Chiricahua. Man days expended: 16.

Job No. 51, Warehouse: The floor is now 75 per cent poured, and the wall from the building to the entrance gate is completed. The gate posts are also finished, ready to hang the gates. Man days expended: 35.

Job No. 52, Oil House: Most of the work done this month by the camp was expended on the oil house. The walls are finished, the concrete slab roof poured, and the wash rack finished except for the roof. Plastering will be started this month, as soon as the wire mesh is put on. Man days expended: 160.

Job No. 53, Guide Service: Rogers and Coyle are still guiding visitors, but Enrollee Holt left for Chiricahua August 22. He plans to take

CASA GRANDE CCC (CONT.)

his discharge at the main camp and enroll as a sophomore at the University of Texas this fall. George Sheffield replaces him as a guide, and after only one week, seems to be fitting into the work very nicely. Man days expended: 113.

Job No. 54, Cleanup and Maintenance: Only four man days expended during the month on camp maintenance.

Job No. 55, Making Adobes: 2,500 adobes were made during the month. A few were lost during the last storm, but the exact number will not be known until used, as the damaged bricks are at the bottom of the pile. Man days expended: 33.

During the month, safety meetings were held every Thursday evening, with all enrollees attending.

August 17, George Sheffield replaced James Holt as guide. Holt is returning to Texas, where he expects to attend the state university this fall.

Stark returned from NM-2-A on the sixteenth and replaced Alaniz as cook.

Due to an infection of the arm, Enrollee DuBose was sent to the infirmary at SP-3-A on August 13, and after spending three days there was sent in to the main camp at Chiricahua where he would receive medical attention.

Chaplain Hurd held services in camp on the 28th. Twenty-two of the members of the camp attended.

Camp inspections were as follows:

July 31. Lt. Willson, from Camp NM-2-A.
August 1. Capt. Harvey, from Camp SP-3-A.
August 2. Mr. Stevenson, Project Superintendent, Camp NM-2-A.
August 11. Captain Harvey.
August 16. Mr. Ed Knagge, from Camp NM-2-A.

*****SWM*****

CAPULIN MOUNTAIN

By Homer Farr, custodian,
Capulin, New Mexico.

Visitors this month, 8,000; total since October 1, 23,700.

We have had a very good month for visitors, and I feel quite sure we

CAPULIN MOUNTAIN (CONT.)

have had a little over 8,000 since July 27. This month, more than ever before, I have been able to get a pretty close check on the visitors for the road has not been in very good condition and has necessitated most of my time this month. Often in the forenoon and late evening I have counted from ten to twenty cars visiting at one time. Our State Tourists Bureau's highway marker has been an influence in sending folks to the monument.

Weather has been very hot and rather dry all the month; while we did have a very good rain about the tenth, it was soon evaporated and since then has been very dry.

The great grasshopper flight reported in last months report on the 28th failed, so far, to show much damage done by them in the community. However, the eastern part of this county has been badly damaged.

Travel over 87 (the newly completed highway through Capulin) has almost doubled since the completion of the road to Raton.

*****SWM*****

EL MORRO

By Robert R. Budlong, custodian,
Ramah, New Mexico.

Visitors this month, 764; total since October 1, 2,766.

The month of August has just about run us ragged. We have had more visitors this month than in any month past, and since we allow no one to go around inscriptions alone, due to damage in past years from this practice, we have had our hands more than full. This month brought the snake dance among the Hopis, the ceremonial in Gallup, and tourists rushing around trying to complete their vacations before Labor Day. We have had a fine bunch of folks, with but a few exceptions. Those exceptions were half a dozen groups who "demanded immediate service", being in a hurry, although the custodian was with a party of people making the usual trip around the inscriptions. We had a few parties that drove in around dusk during dinner or when we had guests to dinner, and some of them indicated that "a government man just sits around with nothing to do anyhow." Some of these late arrivals were government employees who drove in around seven to eight o'clock in the evenings, Saturday and Sunday, having been off duty themselves since Saturday noon. While we tried to let those who came in and were in a hurry join a party already under way, they often did not care for the detailed history desired by the party they had joined, but wanted a short trip, and wanted it at once. It takes all sorts of people to make up our travel. Fortunately, the type of visitor just described is something of a rara avis.

Travel, as indicated above, has been heavy. Too heavy, in fact, for one man to handle alone. We had a total of 764 visitors who registered, and all were contacted. It was necessary to patrol grounds every day, by car or on foot, and often visitors were found disregarding signs directing them to the office, and inspecting inscriptions. In some cases they appeared to be on the point of tampering with the rock surface, but no damage was done--we got there in time.

But if this increase in visitor travel continues, we must have more personnel here. With no ranger to help out, we may have damage done to priceless inscriptions. It is believed that our visitor travel will decrease somewhat next month, and considerably so after September, but by next June we must have more personnel. Also, during the rush season, it may be necessary to hold regular trips of, say, sixty minutes each, holding them each half hour, if we can get a ranger to make this possible. So far, we have been taking people around whenever they arrived, and this has often been up until late at night, but as visitors increase and work piles up, this will become impossible, and it may be necessary to close the gates at five o'clock. If this is done, we can expect to have difficulties with people climbing the fence until some sort of house is built between the inscriptions and the entrance, or the entrance moved. Many visitors have remained on until the midnight hours, wishing to go more into detail, and we have enjoyed those visits. But we sometimes have important guests for dinner, and although dinner has been postponed until dusk (there being no room inside the shack for guests, we have to set the table outside) some visitors arrive just before dark and ask for "immediate service." While we do not like the idea of closing the entrance at a certain hour, something may have to be done along this line in order to insure protection of inscriptions.

Boss, in the July, 1938, Monthly Report, when discussing our "office visits" you commented as follows: "We are surprised at Mr. Budlong's showing of an average of 102 minutes on 24 such talks, which is much longer than he can hold his field parties over at the actual inscriptions themselves; the average time there being 70.4 minutes." Oh no, Boss: not "much longer than he can hold his field parties"--it is only that I do not think it practicable to hold longer field parties when many visitors are coming in and there is no relief man to help out. I could increase my field parties in length of time by a hundred per cent, if desired, but how about those visitors who would have to sit around for two or more hours waiting for the next party? We try to tie new arrivals in with the party already under way until the time when the party has passed around the NE corner of the rock, after which time the average time per inscription is cut down appreciably. Our office visits are not a regular service. Until we get some sort of office or waiting room, it won't do to ask folks to go inside the shack and go through anything they find of interest, since all our personal belongings are there; and with no relief man there is often no one to officiate at such "office visits" when the custodian is conducting a party around the inscriptions. These office visits are

EL MORRO (CONT.)

held in between parties of visitors for those more interested, and are often cut short by the arrival of visitors desiring the regular trip around the inscriptions. But with increased personnel.....

Oh, well, we all have our problems. Here we have quite a number of them, and try to solve them as best we can. But we do have difficulties. This is primarily due to the fact that the house is out of sight of the entrance gate and not between arriving visitors and the inscriptions themselves; lack of sufficient personnel, etc.

VISITORS

The month could not have started more auspiciously, for on the first day of August in drove Director Demaray, Hugh Miller, and Chuck Richey. We had an extremely fine visit, though they arrived late and did not stay long. Ranger McNeil from Bandelier and his folks paid us a visit during the month. We were greatly pleased to have as campers and guests the Misses Arntzenius, lecturers, from Hague, Holland, from August 17th to the 20th. The evening of the nineteenth, after dinner with us, they gave one of the most delightful concerts it has ever been our pleasure to hear--folk songs of many countries, sung in native tongue, accompaniment **being** by guitar and mandolin. It was a treat long to be remembered. Mr. Ivan Dmitri, of etching and Kodachrome fame, and Mr. Richard Thruelsen, one of the Associate Editors of the Saturday Evening Post, paid us a brief but very pleasant visit just before a light rainstorm.

Halfway through this report a visitor who had just finished eating a quick lunch came tearing up to the cabin to inform the custodian that a mountain lion had come stealthily over the hill, had gone just behind the cabin, and had not reappeared. An investigation behind the cabin revealed nothing, so the custodian strung up a 60-pound longbow and went around the woodpile to make an inspection. The varmint was discovered, crouched under some logs, and disposed of in approved fashion. It must have weighed all of 15 pounds--an ordinary house cat, as had been suspected. But that visitor will always believe it was a mountain lion, and far be it from me to disillusion said visitor, who might have been angry to have the monster identified as a small cat.

WEATHER

This has been positively rotten, with rain everywhere but where it has been most needed. Local farmers have reported fairly good precipitation within a radius of some two miles from the Rock, but here we have had only a few of those things called "heavy dews" by one state somewhat removed to the west. We need more moisture, and need it greatly. The water in that pool -- oh, never mind.

WILDLIFE

The owls brought to me by some neighboring children some months ago

EL MORRO (CONT.)

were received with wings broken at the shoulder. I trimmed off the primaries and tried setting the wings. Both seem to have healed, and as soon as the feathers grow out again the owls will be liberated. They used to be quite tame, and would jump to my left arm at feeding time, and eat from my hand. Now, however, from being teased by children, they have become quite vicious, and the last time I tried feeding them by hand one of them drove his talons clear through my left hand, causing some annoyance in the typing of official reports, including this one.

Some time ago I reported the fall from grace (also from the top of the rock) of a full-grown porcupine, and how visitors found the quills remaining where he had fallen of great interest. In fact, I have had so many requests for some of the quills that our supply is about exhausted. If anyone has a couple of spare dead porcupines, please send along a shipment of quills, so visitors won't be disappointed. Which reminds me of a most sad occurrence of a few weeks ago: two of our visitors, of the more deadly sex, asked if they might have some of the quills, and the custodian made the necessary exception to regulations. The visitors were both wearing men's "slacks" and dropped the quills into their hip pockets, and we went on around the inscriptions. Reaching the Martinez inscription, halfway up the talus slope on the north side, the visitors sat down to rest, not being used to the altitude. The porcupine quills apparently had become somewhat turned around in the hip pockets of the guests. A pair of heavy pliers proved quite satisfactory as quill remover.

GENERAL

Weather continues mild, but nights are getting down to around ten degrees above freezing, and sometimes colder, so if in about a month we get our first snow we won't be surprised. The natives predict an early and a severe winter. And what will poor robin do then? For that matter, how about Bill Leicht up at Navajo? Our sympathies, Bill. We lived for a year and a half in an abandoned chicken-house, so we know how it is. In fact, if you have an old chicken-house in poor repair and have no use for it, send it down to us, for we might find it much more spacious than our present abode. Down here we recall almost painfully our first winter in the shack when, due to lack of space, we took turns: the HCWP would sit on the stove for a while while the custodian stood up in the only available floor space; and then, the custodian getting uncomfortable--or perhaps it was the HCWP--we changed. A chicken-house would be positively luxurious.

And by the way, Bill: If you are troubled with Navajos breaking into your domicile, why not try a stunt I found most successful? Around Halloween, get one of those big cardboard skeletons, about five feet long, hang it up just inside your tent, or whatever you use for quarters, and see what happens. I found it most effective--in fact, if you'll make a few adjustments with strings and rubber bands connected to the tent door, to impart a little motion to the jointed limbs of the skeleton

whenever the door is opened, you and the Navajos may be greatly surprised at the results. I mean it. It works. Not long ago I received a letter from some friends of mine up at Point Barrow, Alaska, and they reported having met a very tired Navajo who said he formerly lived at Chin Lee. He had stopped to get some water, and was fleeing north, apparently having been frightened by something in the summer of 1936 near Chin Lee, Arizona. Their description of him coincided with that of one of my former neighbors who had tried breaking into the chicken-house one day when I was in it, and I had let out a couple of wails as he opened the door, and juggled the strings that set the cardboard skeleton in motion. Although I have heard nothing more about him since he got water and started from Point Barrow for points north, I suppose he's running yet.

Well, Boss, you can see from this report that we have done nothing during the month. Nothing, that is, except to keep going steadily from early morning to often "way past midnight", taking care of visitors. That numerical classification of activities as now used has the disadvantage of seeming to indicate that a man who has had his time taken during the entire month handling visitors has done nothing. But we've been mighty busy every minute, and for that reason you get this haywire report.

*****SWM*****

ARCHES

By Harry Reed, custodian,
Moab, Utah.

Visitors this month, 182; total since October 1, 1,248.

I think the weather man is due some criticism for the way he gave us our allowance of precipitation this month. It has been very dry and hot in the monument except for two cloudbursts which occurred in rapid succession. The CCC boys had the shaling completed in the washes and sandy places along the road and we enjoyed the improvement for the short span of one week when on the night of August 8 the first cloudburst occurred in the vicinity of Valley city, sending a five-foot wall of water down Court House wash, sweeping everything in its path. It was a wild sight that greeted me the following morning when I arrived at the wash. Twisted and matted piles of brush held in place by newly formed sand ridges were everywhere. It was evident that the road could not be opened to traffic for several days. I returned to Moab and related my story of woe to L. L. Taylor who immediately arranged to have the road repaired. Merle Winbourn, state road foreman of Moab, supplied a section of corrugated culvert of thirty-six inch diameter to be placed in the main channel of the wash. Work could not be started on the project until August 11, as some water was still running and the sand was very soft. On the night of August 11 the second flood came down, removing almost every evidence of the work that had been done the previous day. No further interference

ARCHES (CONT.)

was experienced, however, and the road was re-opened to traffic on August 16.

During the week that the road was closed, I was stationed out at the highway to direct visitors to other parts of the monument and to Natural Bridges and Mesa Verde.

VISITORS

Despite the fact that the road to the monument was closed for one week, we have had 182 visitors this month. I am sure the figure would have been over 250 if all who came could have gotten to the monument.

PARK SERVICE

Dr. Carroll H. Wegemann, regional geologist, Region II, Omaha, Nebraska, was a visitor on August 22 and attended the Moab Lion's Club picnic dinner which was held in the monument on that date.

LION'S CLUB PICNIC

On Monday, August 22, the Moab Lion's Club served a picnic dinner to the members, their families and friends. A total of 49 persons attended the "feed" and an enjoyable time was had by all. A real cow puncher style feed of steak fried in dutch ovens and served with Mexican style chile-gravy and potatoes was the menu. After dinner we were entertained by a very instructive lecture on the geology of Arches National Monument by Dr. Wegemann.

Tables for the occasion were transferred from the Moab City Park to the monument. I have received permission to keep the tables at the monument for the remainder of the season. These are placed in a very desirable spot near the balanced rock which gives us an excellent picnic and camping area for the present.

MISCELLANEOUS

I have had occasion to make several trips into the Devil's Garden and some of the other areas to be included in the proposed boundary. While on these trips I have located ten springs, of which only four are good water. They are located as follows: two in Court House Wash (down stream from the point where the temporary road into the Windows crosses the wash) one in Salt Wash, west of Delicate Arch and one in the lower end of the Devil's Garden. I have seen all except the latter and all have sufficient flow for all purposes for a monument headquarters. But all of them are very undesirably located.

I am sorry that I do not have a new arch to report this month. I shall have some leisure time during September and plan to make a rather

ARCHES (CONT.)

complete survey of the upper end of the Devil's Garden. This is an area approximately two and one half miles in width and six miles in length. I have never been in that part of the garden. Bert Newell, a stockman who has ridden there extensively, tells me there are a "lot of arches" in that part of the monument.

*****SWM*****

TONTO

By Roland Richert, park ranger,
Roosevelt, Arizona.

Visitors this month, 27%; total since October 1, 4,745.

Travel at Tonto decreased between 10 and 15 per cent in comparison with the previous month, but remained approximately the same as that for the corresponding period a year ago. Despite the fact that the visitor curve hit the low point for the summer, 25 states and Mexico were represented on the register, which indicates that we are quite a cosmopolitan point after all.

On July 26 we thoroughly enjoyed a visit by Mr. Hugh Miller, assistant superintendent of Southwestern Monuments, and Mr. A. E. Pamaray, associate director of the National Park Service. Regional Architect Cornell and Associate Landscape Architect A. C. Kuehl were with us all too briefly on August 13.

Interestingly enough, two other U. S. Departments, in addition to the Department of the Interior, were represented here this month. Mr. Fred Winn, Tucson, Mr. S. A. Sowell, Tucson, and Mr. G. E. Engstrom, Patagonia, Arizona, all with the United States Forest Service, Department of Agriculture, were visitors on July 31. And on August 4, Mr. M. M. Ellis, Columbia, Missouri, of the U. S. Bureau of Fisheries, Department of Commerce, accompanied by seven college students, were interested visitors. It was learned that this group is on an inspection tour of western streams and lakes, studying pollution of waters, etc.

Among our other visitors for the month we include the following: Mr. and Mrs. Ben Frazier, Roosevelt; Dean E. R. Riesen, University of Arizona, and son Carl; Dr. H. V. Halladay and Miss Jerry Jaden, both of Des Moines, Iowa; Mr. and Mrs. Tom Dix, affiliated with radio station KOY, Phoenix; and Mr. W. M. Kishbaugh, Hershey, Pennsylvania, an executive of the Hershey Chocolate Corporation.

The Ranger's spare time has been largely devoted to work on the approach road which has undergone severe after effects of the summer rains, and to general maintenance of headquarters.

TONTO (CONT.)

Tonto weather has consisted of a series of warm spells interspersed with refreshing rains. Below, we give a table of weather statistics, taken from the daily records of Mr. Reynolds, official observer.

Maximum temperature-----	112	Days clear-----	23
Minimum temperature-----	64	Days cloudy-----	1
Total precipitation-----	2.38	Days partly cloudy-----	7

*****SWM*****

NATURAL BRIDGES

By Zeke Johnson, custodian,
Blanding, Utah.

Visitors this month, 197; total since October 1, 619.

In last month's report, sent in to headquarters on the 24th, I reported 197 visitors. But after the report had left camp, five other people came in and I spent five hours with them. So I am entitled to 202 visitors and five more hours added to my time.

This has been an ideal month--very cool weather, cloudy every day but three. And every cloudy day left some moisture somewhere in the county. On four days we had good rains all over this section. We have not had, however, had the cloudbursts like we had last season, so roads and trails are in very good condition--especially the roads. The La Sal National Forest men have worked all the road on the forest, widened the grades, and made the road very much better all the way. The State Road Supervisor has done a lot of very good work on the hill west of Maverick Spring--put in six new culverts and widened the road in several places. Also, he has sanded or graveled some of the worst places near Brushy Basin where it got so muddy. I have also done some work on the approach road--hailed in some shale on the worst places. But every time it rains, most of the shale is carried away.

There have been only eleven people out here that I did not talk to. And they came and left while I was out on a hike. I believe the world is getting better, or else the best people are all coming out here. For there never were so many nice people, all well pleased, who go away singing the praises of the monument. There has been only one complaint this month--that from a young lady from Mesa, Arizona. She wrote in the register "the longest damn nine miles in the world". Just the other day a very fine gentleman from Los Angeles drove up and in a very dignified manner asked how far it was over to the big bridge.

"Three miles, brother."

"Well, I believe I can walk six miles."

NATURAL BRIDGES (CONT.)

So I loaned him a water bag full of water, went down to Owachomo and talked for 20 minutes, then started him off on the trail.

Five hours later he came in and shouted, "Why in H... didn't you tell me it was six miles over there?"

"Well, brother, I wanted you to see the bridge and if I had told you six miles, I am sure you would not have gone."

"Well, I am glad I went; glad I am back alive. But please tell me how you measured that distance."

"I took a big coyote hide for my measuring stick and always threw in the length of the tail."

"I thought so. I tell you, Mr. Johnson, instead of calling that Bridge Sipepu or Augusta, it should be called the Wonder of the World, No. 1. I thank you for selling me threemiles."

So nearly every day compliments come to the monument and I am glad to be here.

So many small floods have come down Armstrong Canyon that a spring has broken out in the left-hand branch. And I have fixed it up and now get good cool water. It is 185 yards from the spring to the foot of the hill, then 438 up hill, then 100 from top of hill to camp. So, when I get into camp, it surely is valuable water. It is said that you can't teach old dogs new tricks. But I have learned one. Now when I take a party down to Owachomo, I bring them back over the old horse trail past the spring and there I tell them how good and cool the water is so that they will drink plenty. That saves me many a water bag full up at the camp. Yes, it's lots of fun to carry water up here then loan most of it out to people for their radiators. I had two New Yorkers at the spring the other day and they said they paid 10¢ a glass for such water in New York. It has a little sulphur taste.

On Saturday, the twentieth, a convention of the Associated Civic Clubs of southern Utah was being held at Monticello and I was anxious to be there for the 3:00 p. m. meeting, so Mrs. Johnson and I left at 12:00 noon. When we were going into the big West Water Canyon, three miles out of Blanding, a shackle broke on the front spring of our car. Then it was some slow traveling the rest of the way. But we finally got there. Couldn't find a shackle for V-8 but found one for Model A. We put that in and got to Monticello at 7:20 p. m., in time for the banquet. Men were there from 16 Utah counties and from many cities in Colorado. Jesse Nusbaum, from Mesa Verde, and a representative from the Navajo reservation were there. It was a very large crowd. Many fine talks were made about the scenic sections of southeastern Utah. One gentleman from Moab told of the beauties of the Arches National Monument and of there

NATURAL BRIDGES (CONT.)

being 47 or more arches or little bridges. Next speaker was a lover of the Natural Bridges Monument. He said, "We San Juan County people know how you got so many little bridges in Grand County. Old Edwin took his two ladies, Caroline and Augusta and went over there and filled the whole country with their posterity. They then came back to White Canyon where they could spend the rest of their days in peace and quiet.

Mr. G. T. Hand, meteorologist for the U. S. Government, was here on August 14. Roving Ranger Alfred Peterson and his wife, Bernice, were here during the month. I was very glad to have them here.

The other day, as I was out after a load of wood, Mrs. Johnson picked up three arrow points then I found three. Then last evening I took a walk one mile and a half up Armstrong Canyon to a bunch of old houses and picked up six more points and one bead or earring. I am writing a description of them to you in another letter. They are very nice ones.

Talk about crows at Navajo. I have six of them here which have been here for several years. They are the best scavengers in the world, and believe me, they are on the job every morning for their breakfast. I feed them on the rocks just east of camp. It's fun to watch them and see how disgusted they are when I throw out some empty corn cobs.

*****SWM*****

HEADQUARTERS

BRANCH OF MAINTENANCE

By F. E. Stonehocker, general mechanic, Coolidge, Arizona.

Activities during the month were as follows:

July 25 to 28, inclusive. Loaded caterpillar and took it to Mount Elden.

July 29 and 30. Installed cooler in naturalist's office.

August 1. Loaded compressor for NM-5-A and serviced truck.

August 2. Checked switch and thermostat in water cooler and ordered repairs. Repaired door stop control on comfort station. Measured up for auxiliary gas tank for new truck.

August 3. Installed new gas tank in Chevrolet truck for naturalist's use. Repaired and replaced swings at picnic grounds. Made hinge pins and anchors for gates for the new equipment area.

August 4. Welded pipe for flagpole for CCC camp. Cleaned and lubricated sewer pump and water pump.

August 6. Replaced bearings and ground valves on CCC concrete mixer.

August 8. Cleaned sewer line and replaced trap in Soule quarters.

August 9. Set up CCC flagpole.

August 10. Trip to Phoenix for material for naturalist truck.

August 11. Piped drinking fountain for CCC camp and changed cooler installation at the camp.

August 12. Replaced drive shaft and universal joint on CCC Reo truck.

August 13. Installed panels in comfort station door.

August 15. Loaded equipment for Mount Elden CCC camp. Installed conduit and switch box in new oil house.

August 16. Checked material and ordered supplies for installing the electric circuits in warehouse and oil house. Drilled angle braces for cabinets in naturalist's truck.

BRANCH OF MAINTENANCE (CONT.)

August 17. Installed water outlet for washrack at CCC camp. Put in guide rod for skylight shade in headquarters office.

August 18. Checked lists and ordered plumbing material for new warehouse. Laid out trench for conduit.

August 19. Installed the entrance conduit in new warehouse. Repaired gasoline pump hose.

August 20. Installed new control unit in General Electric water cooler in Custodian's office.

August 22. Repaired water pump for the water system.

August 23. Painted USDI No. 1803.

August 24. Painted USDI No. 1803. Showed survey and material to prospective bidders.

In addition, the regular servicing and minor repairs to motor equipment stationed here at headquarters **were** accomplished during the month.

*****SWM*****

BRANCH OF EDUCATION

By Dale S. King, park naturalist,
Coolidge, Arizona.

On Wednesday, August 10, Park Naturalist King traveled to Tumacacori National Monument to aid the assembly and installation of museum cases there. He returned to headquarters at 11:00 p. m., on Saturday, August 13. He also made another trip to Tumacacori on Sunday, August 21, in company with Regional Archeologist Erik Reed and Junior Archeologist Charlie R. Steen to inspect the museum exhibits. With the exception of these two trips, King was in the office all month.

Junior Archeologist Charlie R. Steen spent $2\frac{1}{2}$ days of the month, beginning August 3, on a regular patrol of Organ Pipe Cactus National Monument. An additional $12\text{-}\frac{3}{4}$ days were used in case installation at Tumacacori National Monument.

Junior Naturalist Natt N. Dodge was in the office up until August 20, his time being chiefly occupied in the preparation of reports.

Temporary Ranger-Historian Gertrude Hill spent the month at headquarters on work connected with the Southwestern Monuments Loan Library. Following is a resume of the time devoted by members of the staff to various projects:

BRANCH OF EDUCATION (CONT.)

	King - Steen - Dodge - CCC			
	Days			
<u>General Office Overhead</u>				
Correspondence (158 letters)	6	3/4	2	0
Conferences and discussions				
With headquarters staff.	1-1/2	1	1/4	0
With visiting scientists	0	1/4	0	0
With NPS personnel	0	0	0	0
Library(file,issue publications,etc.). . 0	0	0	0	0
<u>Reports</u>				
Compiling and processing annual and monthly reports.	1/2	1/2	10	9
To Washington or Region III offices. . 0	0	0	0	0
Miscellaneous.	1	3/4	1	2
<u>Publicity</u>				
Prepare Info. and Publ. material . . .	1/4	0	1	0
Check Region III publicity releases. . 0	0	0	0	0
<u>Miscellaneous</u>				
Construction (painting, carpentry,etc.)0	1-1/2	0		6-1/2
Wrap and ship requested material . . . 0	1/2	1/2		1
Clean-up, maintenance, & inventory . .	1/4	1/2	0	1
<u>Research and Education</u>				
<u>Public contact</u>				
Prepare and deliver outside lectures . 0	0	0	0	0
Relief guide duty at monuments 0	0	0	0	0
Office visitors, informational	1/2	0	1/2	0
<u>Museum and nature trails</u>				
Acquire and prepare specimens, catalog 4	12-3/4	1/4	0	
Acquire equipment and supplies 4	0	0	0	
Planning	6-1/2	2-3/4	4-1/2	0
Arboretum planting, planning, mainten. 0	0	0	0	3-1/2
<u>Visual education</u>				
Slide and motion picture library work. 0	0	1/2	0	
Filing prints and negatives. 0	2-1/4	1/4	0	
Taking and processing photographs. . . 0	0	1/2	0	
<u>Miscellaneous</u>				
Birdbanding and observation recording. 0	0	0	0	0
CCC side camp educational program. . .	3/4	0	0	0
Ruins stabilization project admin. . . 1	0	0	0	0
Southwestern Monuments Association . .	1/4	0	0	0
<u>Field Work</u>				
Field trips.	1/2	1/2	0	0
Organ Pipe Patrol.	0	2-1/2	0	0
<u>Leave</u>				
Annual	0	1	6	0
<u>TOTAL FOR THE MONTH</u>				
	27-1/2	27-1/2	27-1/4	23

BRANCH OF EDUCATION (CONT.)

VISITORS

Mr. and Mrs. William Lippincott; Regional Palnner Christiansen; Dr. and Mrs. John Keur; Architects Al Kuehl and Harvey Cornell; Custodian Louis Caywood; Dr. E. S. Hathaway, biologist from Tulane University, New Orleans, Louisiana.

SOUTHWESTERN MONUMENTS LOAN LIBRARY, by Gertrude F. Hill, temporary park ranger-historian.

This last month of the temporary ranger-historian's term of service has seen the clearing away of many odds and ends left over from the previous summer and from the winter's accumulation of new material. Practically all of the books, pamphlets, periodicals, and reprints actually needed in the work of the Branch of Education have been classified, cataloged, and made available for use. The remaining publications are conveniently shelved in the library and will be prepared in the usual manner at some future time.

Research work and the compiling of bibliographies consumed 16 hours of the ranger-historian's time. Particularly worthy of note was a 13-page annotated list of books and other material on the Apache, Navajo, and Pueblo tribes of the Southwest. Detailed report concerning the anthropological collections of the Headquarters Loan Library was prepared and sent to the Clearing House for Southwestern Museums.

Extra copies of publications in the library were apportioned to various monuments where they would be of the greatest value for reference. These will be distributed to the several custodians within a short time.

A list of rules governing the borrowing of books from the Headquarters Loan Library (to be placed on the book pocket in each volume), a suggested form letter for acknowledging gifts, and blank card forms--"Request for Loan" (to be sent to the library by custodians and rangers when certain books are wanted at a given monument) and "Request for Return" (to be sent to custodians and rangers by the librarian when books in their possession are needed at Headquarters to fill requests) were prepared for submission to the Park Naturalist.

Eighty-three volumes from the library went sent to the Western Museum Laboratories at Berkeley for much-needed repairs, which accounts for the paucity of books mended during the summer months. Arrangements were also made to obtain photographic negative envelopes from Berkeley to facilitate the care of the headquarters photographic collections.

Substantial additions were made to the "Books Wanted" list and to the bibliographical file on the various monuments under our jurisdiction.

One field trip was made with Ranger Don Egermayer and Dr. and Mrs.

BRANCH OF EDUCATION (CONT.)

John Keur to the Snaketown site near Casa Blanca.

A summary of activities from July 26 through August 26, 1938 follows:

Books cataloged:-	237
Cards made:-	-1,322
Author:-	-159
Subject:-	-309
Title:-	49
Joint author and cross	
reference:-	36
Shelf list and accession	
record:-	-481
Bibliography:-	94
Books wanted:-	-194
Books mended:-	17
Incoming publications:-	80
Periodicals:-	45
Pamphlets:-	10
Books:-	21
Maps:-	4

GENERAL OFFICE WORK

Library:

Sorting accessions, shelving, preparing books to be shipped for repairs, issuing books to monuments:-	4 days
Classifying and cataloging:-	12 days
Revising cards, mending, marking books:-	4 days
Correspondence:-	$\frac{1}{2}$ day
Bibliography and research:-	2 days
Reports and filing cards:-	4 days
Checking book lists for orders:-	$\frac{1}{4}$ day
Office filing:-	$\frac{1}{4}$ day

RESEARCH AND EDUCATION

Field trip:- $\frac{1}{2}$ day

THE SUMMER'S WORK AT A GLANCE, JUNE 2 THROUGH AUGUST 26, 1938.

Books cataloged:-	635
Cards made:-	-4,426
Author:-	605
Subject:-	-1,460
Title:-	181
Joint auth. and cross	
reference:-	105
Shelf list and accession:	316

BRANCH OF EDUCATION (CONT.)

Bibliography:- - - - - -320
Books wanted:- - - - - -439
Books mended: - - - - - - - - - - 26

FILING EQUIPMENT

The office was pleased to receive delivery on a large wooden map case, very excellently prepared in the shops at Chiricahua National Monument. The arrival of this map case is at least a small milestone in the progress of the Educational Division, for now we have filing space for all types of materials which must be kept in order by the Naturalist's office. Formerly, maps were stuck in odd corners, and were very inaccessible.

MUSEUMS

Considerable activity was experienced in several phases of our museum work.

A memorandum to the Superintendent, including notes on museum features which should be incorporated in future Southwestern Monument buildings was prepared. In this memorandum were stated such details as case types and dimensions, lighting arrangements, methods of visitor circulation, etc.

Also prepared for the Superintendent, who forwarded it to the Director, was a general statement of the present status of museum buildings and exhibits in the Southwestern Monuments. Most urgent needs were given in a priority list, and the estimated sums to accomplish these items were detailed.

Perhaps the major accomplishment in planning was the completion of the preliminary plan for the exhibits at White Sands National Monument.

Another noteworthy accomplishment was the preparation of the working plans for cases 21 through 25, Bandelier National Monument museum. This was transmitted at the same time with the White Sands plan.

One of the greatest advances in years came with the delivery of a 3/4-ton panel body Chevrolet truck, which was assigned to the Branch of Research and Education, chiefly for use in museum preparation. Carpenter E. C. Gipe was hired to make sectional, removable, wall cases for the truck. These, when finished, will be dust-proof, and will accommodate sufficient tools, equipment, and materials to make the truck an efficient traveling museum preparation laboratory. Since the Southwestern Monuments are widely scattered, the acquisition of such a truck solves many of our major problems. On the twenty-fifth of the month, the cases were finished with the exception of painting, and final placement. It is expected that the truck will go into operation next month.

BRANCH OF EDUCATION (CONT.)

Considerable museum planning was done on cases 1 and 16, Bandelier museum. Several requisitions were sent to Berkeley so that preparation of exhibits will go forward rapidly.

Further arrangements were made toward the acquisition of young Merriam turkeys for case 24 at Bandelier National Monument museum. It is hoped that poults can be delivered in time so that Temporary Ranger Philp, now stationed at Chiricahua National Monument, can prepare them for exhibit before the expiration of his summer term.

Two questionnaires for the Clearing House for Southwestern Museums were answered for Casa Grande National Monument, and submissions from other monuments were forwarded to the office of the Association at the Denver Art Museum.

Orders were sent for two new compounds which should solve the problem of casting inscriptions at El Morro National Monument, probably sometime this autumn. When these casting compounds are received, experiments will be made, and then the actual work will proceed in collaboration with Custodian Budlong at that monument.

Some impetus was given to the project of identifying accurately textiles from the Montezuma Castle collection by the purchase of materials for an eastern expert who is working on the textiles.

The repair of prehistoric pottery in Casa Grande was aided when Steen and King provided some of the supervision necessary. When this project is finished, for the first time in history **all of the restorable** pottery at Casa Grande will be in good repair. The final cleaning and matching of colors is far from complete, however, and it is hoped that this project can be accomplished within the next few years. Such a project is inadvisable at this time, for there is no fireproof storage for the pottery, and our very poor storage conditions would probably ruin such fine and delicate repair.

ACCESSIONS FOR AUGUST

One Chevrolet 3/4-ton panel body truck, USDI 13,920.

One evaporative cooler for office.

One Daylite screen, size 45 x 60 inches, with tripod.

One small table to support 3 x 5 steel file boxes.

One large map filing cabinet with 14 drawers.

Sixty adjustable tool holders for museum truck.

One trial set Vogue glaze color.

463 photographic prints from the Western Museum Laboratories.

35 negatives from the Western Museum Laboratories. (Many of these prints were made from old negatives, very kindly furnished us from the personal collection of Custodian George Boundey.

BRANCH OF EDUCATION (CONT.)

CASA GRANDE SIDE CAMP EDUCATIONAL PROGRAM

The usual classes were held, with attendance somewhat curtailed by the usual lethargy which seems to seize most inhabitants of southern Arizona during the month of August: photography, conversational Spanish, typing, building construction, and auto mechanics.

Many of the CCC enrollees are still playing softball on a "Ruins" team on Tuesday and Thursday nights at the Coolidge High School field.

NATURAL HISTORY

Some assistance was given to Advisory Board Member Abrahams, of Savannah, Georgia, who desired information on the methods of growing ocotillo plants.

Two snake specimens from Casa Grande were shipped to Dr. Gloyd of the Chicago Academy of sciences for identification.

All of the natural history observations made by Mrs. Earl Jackson during her residence at Bandelier National Monument were typed onto the regular month's observation cards for natural history. These were mailed to Custodian Harkins, so that his observations from now on will be made in the light of previous data.

We were very pleased to receive a visit from Professor E. S. Hathaway, of Tulane University, who is very interested in the general conservation program, and particularly in the activities of Government bureaus in the Southwest.

SOUTHWESTERN MONUMENTS ASSOCIATION

Very little was done on the first Association booklet. It is in readiness for the final typing, but all available typists around headquarters have been so extremely busy, day and night, that the work could not be accomplished. Now that the travel season has been missed for northern monuments, it is imperative that the booklet be issued within a month or two so that it can be on sale at all southern monuments for the winter season.

MISCELLANEOUS

It should have been mentioned under museums that the catalog for the Casa Grande museum has been kept up-to-date by Junior Archeologist Charlie R. Steen. For new field men, it might be instructive to explain that the Naturalist Staff at headquarters maintains most of the educational work for the Casa Grande staff so that headquarters naturalists can gain experience in the various duties required of a field man.

BRANCH OF EDUCATION (CONT.)

During the month it was ascertained that the National Park Service is thoroughly in accord with decisions of the Board on Geographic Place Names. It was learned that the spelling "Chettro Kettle" and "Keet Seel" are correct.

*****SWM*****

BRANCH OF
ACCOUNTING

By Parke W. Soule, chief clerk,
Coolidge, Arizona.

Vouchers prepared during the month, regular appropriations	138	
Vouchers prepared during the month, CCC	<u>138</u>	276
Purchase orders issued, regular appropriations, Hdqrs.	77	
Purchase orders issued, CCC	<u>119</u>	196
Allotment ledger sheets to Washington, regular appn.	215	
Allotment ledger sheets to Washington, CCC	<u>82</u>	297
Expenditures:	<u>Total for Month</u>	<u>To date</u>
1491000 National Park Service, 1939	8,022.73	14,330.97
148/91000 National Park Service, 1938-39	3.63	205.27
14-1010 Roads and Trails NPS	452.43	629.63
Civilian Conservation Corps	7,779.96	13,719.09

OFFICIAL MAIL COUNT FOR AUGUST, 1938:

Incoming:- - - - - - - - - - -3,766
Outgoing:- - - - - - - - - - -4,259

Total Official Postal Mail- - - - - - - - -8,025

Official Telegrams:

Incoming:- - - - - - - - - - -27
Outgoing:- - - - - - - - - - -27

Total Official Telegrams- - - - - - - - -54

GRAND TOTAL OFFICIAL MAIL - - - - - - - -8,079

Personal incoming mail- - - - - - - - --1,327

GRAND TOTAL MAIL HANDLED- - - - - - - -9,406

*****SWM*****

VISITOR STATISTICS

By the Boss

In the month of August we had 52,156 visitors to the Southwestern Monuments, as nearly as we could gather the figures. This compares well with the 42,282 visitors we had for the same month last year and the 40,035 we had for the previous year.

Principal increases have been at White Sands, Capulin, and Aztec. Minor gains were registered at Canyon de Chelly, El Morro, Montezuma, Natural Bridges, Sunset Crater, Tumacacori, Walnut Canyon, and Wupatki. Losses were reported from Bandelier, Casa Grande, Chaco Canyon, Gran Quivira, and Tonto.

Of the 52,156, we made 28,981 contacts, or 55.5 per cent, which compares with a 41 per cent contact last month and 47.6 per cent contact for August of last year. Our trouble is that the bulk of our visitors are visiting monuments where we have not yet been able to get personnel to meet them. 28,285 visitors were unattended last month, which shows quite clearly, to one who understands our problems, that we needed more men.

We ran 2,155 field trips during the month and gave 1,488 museum talks. This is the first time we have delivered more than 2,000 field trips in one month, and we are proud of the record. That we did not rush the visitor in doing it is shown by the average time per field trip of 55 minutes as against 52.4 minutes last month and 51.6 minutes for August a year ago.

We gave 1,488 museum talks in August to 8,340 people and the talks averaged 21.3 minutes each.

With our personnel of forty people, part of them CCC guides who cannot work long hours, this all means that our force was very busy indeed through the month of August.

Next month will close our visitor year and we will have had well over 300,000 visitors during the period, which will be more visitors than the Grand Canyon had last year.

We have, thus far this visitor year, given 26,321 units of service in the way of 16,453 field trips and 9,868 museum talks, more units of service, I will venture to say, than has been given by any other unit in the Park Service.

"Verily," as Carlsbad has it, "We do our part."

VISITOR STATISTICS FOR AUGUST, 1938 SOUTHWESTERN MONUMENTS

MONUMENT	Employees		FIELD TRIPS						MUSEUM TALKS						Unattended	Total Informational Contact	Total Travel	Per cent Contact
	Per.	Temp.	No.	Att'd	Time	Av. Att'd	Av. Time	No.	Att'd	Time	Av. Att'd	Av. Time						
Arches	1	--	--	--	--	--	--	--	--	--	--	--	--	--	182	182		
Aztec Ruins	2	1 1/2	306	3274	14300	10.6	46.4	323	3019	8789	9.3	27.2	205	6293	3479	180.8		
Bandelier	2	5	201	1950	21450	9.7	106.7	109	923	2350	8.4	21.5	---	2873	3355	85.6		
Canyon de Chelly	1	2	86	335	10075	3.8	117.1	62	247	1985	3.9	32.0	27	582	362	160.0		
Capulin Mountain	1	--	--	--	--	--	--	---	---	---	---	---	---	8000	8000			
Casa Grande	2	3	285	1412	10039	4.9	35.1	199	1161	4543	5.8	22.8	467	2573	1694	151.8		
Chaco Canyon	1	1	98	525	6881	5.3	70.2	81	283	1891	3.4	23.3	178	808	650			
Chiricahua	1	3	129	708	6715	5.4	52.0	---	---	---	---	---	304	708	1012			
El Morro	1	--	120	720	9220	6.0	76.8	14	69	1860	4.9	132.8	---	764	764			
Gila Cliff	--	--	--	--	--	--	--	---	---	---	---	---	20	--	20			
Gran Quivira	1	--	82	417	2460	5.0	30.0	---	---	---	---	---	20	417	417			
Hovenweep	--	1 1/2	--	--	--	--	--	---	---	---	---	---	20	--	20			
Montezuma Castle	2	--	312	994	8307	3.1	26.6	209	829	2252	3.9	10.7	324	1823	1696	107.4		
Natural Bridges	1	--	41	197	5510	4.8	134.3	---	---	---	---	---	---	197	197			
Navaajo	1	--	21	63	8015	3.0	381.0	---	---	---	---	---	13	63	76			
Organ Pipe	--	--	--	--	--	--	--	---	---	---	---	---	300	--	300			
Pipe Spring	1	--	40	117	1365	2.9	34.1	---	---	---	---	---	198	117	315			
Rainbow Bridge	--	--	--	--	--	--	--	---	---	---	---	---	30	--	30			
Saguaro	--	--	--	--	--	--	--	---	---	---	---	---	300	--	300			
Sunset Crater	--	--	--	--	--	--	--	---	---	---	---	---	1428	--	1428			
Tonto	--	1	42	151	2363	3.6	53.3	79	265	1505	3.4	19.0	12	416	277			
Tumacacori	2	--	199	759	5552	3.8	27.8	---	---	---	---	---	393	801	1152			
Walnut Canyon	1	--	122	473	2318	3.8	19.0	412	1544	6592	3.7	16.0	810	2017	2827			
White Sands	2	--	--	--	--	--	--	---	---	---	---	---	22941	--	22941			
Wupatki	1	--	70	327	4180	4.6	59.0	---	---	---	---	---	325	327	652			
Yucca House	--	--	--	--	--	--	--	---	---	---	---	---	10	--	10			
TOTAL	24	16	2155	12422	118652	5.7	55.0	1488	8340	31767	5.6	21.3	28285	28981	52156	55.5		
Last Month	24	17	1952	10252	102285	5.2	52.4	1388	8031	30500	5.7	21.9	30,050	17359	42282	41.0		
Last Year	16	13	1940	12259	100239	6.3	51.6	1094	6894	20876	6.3	19.08	26,198	19,153	40035	47.8		

AZTEC RUINS VISITOR RECORDS

By the Boss

For the first time for a long period, we are able to give some comparative figures on Aztec Ruins.

It will be noted that with 88 man days of work, the four persons handled 306 ruins and 323 museum trips. These trips netted them 3,274 ruins contacts and 3,019 museum contacts, or a total of 6,293 contacts.

Aztec was at the peak of the visitor year and these figures tell us in no uncertain terms that the boys were busy. The average number of half-trips per day per guide was 7.1, for instance, whereas at Casa Grande, which is nearly at the low point of its year, the corresponding figure was 4.6.

To get a proper comparison with this Aztec month out of the Casa Grande series we have been keeping, we have to go back to February, where they handled 6,957 visitors with 7.8 half-trips per day per guide.

The average total trip time at Aztec was 73.5 minutes, while at Casa Grande it was 57.9.

AVERAGE TRIP TIME

	RUINS	MUSEUM	TOTAL
T. C. Miller	52.9	30.2	83.1
J. W. Brewer	44.1	28.4	72.5
Alfred Peterson	47.5	26.6	74.1
NYA Guide	36.7	24.3	61.0
AVERAGE	46.3	27.2	73.5

	Days Worked	No. Parties		Minutes		No. Visitors		Half trips per day
		Ruins	Museum	Ru.	Mu.	Ru.	Mu.	
Miller----	26	71	91	3760	2755	881	903	6.2
Brewer----	27	160	75	7060	2130	1474	501	8.7
Peterson--	12	58	34	2755	905	777	297	7.6
NYA Guide-	23	17	123	625	2998	142	1318	6.0
TOTAL----	88	306	323	14200	8789	3274	3019	7.1

*****SWM*****

CASA GRANDE VISITOR RECORDS

By the Boss

The fluctuation of guiding time at Casa Grande continues to hold the
SOUTHWESTERN MONUMENTS

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CASA GRANDE VISITOR STATISTICS (CONT.)

spot light and to remain unexplained. The average guide time was up in March, down in April, up in May, down in June, up in July, and is now down in August. The cause of this fluctuation is undoubtedly on the side of the traveling public. But just what makes the traveling public decide to speed up one month and slow down the next has thus far eluded our study.

This month our guide figures deal with six men, four CCC boys and two regular employees. Bicknell was busy with other work and guided only six parties, working as a pinch hitter. Eggermayer also had other work part of the time and did not guide 100 per cent of the time. Sheffield is a new man coming on to take Holt's place. Holt is quitting to go back to school.

Coyle leads Rodgers again this month by .3 minutes in the ruins and .9 minute in the museum. These two boys have been running a close race all summer. Holt had not yet reached his maximum and in another month or two would have given the other two boys keener competition. Sheffield is doing very well indeed for a new man and will pick up a couple of minutes each on the ruins and museum trips next month.

Altogether, the boys put in 99 man-days of work guiding during the month and ran 286 ruins parties and 199 museum parties. These parties totalled 1,412 persons through the ruins and 1,161 through the museum.

By a comparison of the above totals with those for past months in Table II, it would seem that at Casa Grande we struck bottom in July and are on the way up with the natural seasonal increase of the fall traffic.

Note that Sheffield and Rodgers lead in the number of half trips taken per working day.

With the total number of visitors at 1,694, the ideal number of contacts would have been 3,388, or two contacts to the visitor. The boys really made 2,573 contacts. The missing contacts are due, in large part, to repeaters and picnic visitors who came to bring others. There were a few who were sick, crippled, or aged and could not make the trip through the ruins. The boys obtained 151 per cent contact, which is good but nothing to brag about when they were shooting at 200 per cent.

AVERAGE TRIP TIME

	RUINS		MUSEUM				TOTAL	
	AUGUST	JULY	JUNE	AUGUST	JULY	JUNE	AUGUST	JULY
Rodgers-----	35.0	36.6	34.2	20.3	23.2	20.5	53.3	59.8
Coyle-----	33.3	38.3	32.2	21.2	23.9	21.6	54.5	62.2
Holt-----	31.7	35.0	31.8	20.5	20.3	20.1	52.2	55.3

CASA GRANDE VISITOR STATISTICS (CONT.)

	RUINS		JUNE :	MUSEUM		JUNE :	TOTAL		JUNE
	AUGUST	JULY		AUGUST	JULY		AUGUST	JULY	
Sheffield---	27.9	----	----	18.6	----	----	46.5	----	----
Egermayer---	49.8	51.1	51.7 :	33.2	28.7	25.6 :	83.0	79.8	77.3
Bicknell----	43.0	51.0	18.0 :	36.5	31.8	39.0 :	79.5	82.8	57.0
AVERAGE---	35.1	39.1	35.7 :	22.8	23.8	21.6 :	57.9	67.8	57.3

	Days	No. Parties		Minutes		No. Visitors		Half trips
	Worked	Ruins	Museum	Ru.	Mu.	Ru.	Mu.	
Rodgers---	22	80	58	2641	1178	409	371	6.3
Coyle-----	21	72	37	2398	784	382	220	5.2
Holt-----	20	63	45	1995	924	347	284	5.4
Sheffield-	7	23	21	642	390	94	87	6.3
Egermayer-	25	44	36	2191	1194	213	196	3.2
Bicknell--	4	4	2	172	73	17	3	1.5
TOTALS--	99	280	199	10039	4548	1412	1131	4.8
July----	90	237	184	9279	4383	1435	1261	4.6
June----	94	256	207	9154	4486	1401	1171	4.9
May-----	100	319	232	11757	5353	2232	1883	5.5
April---	113	357	242	12638	5201	3168	2716	5.3
March---	94	335	199	12159	4202	2995	2530	5.6
February	102	462	338	15573	6826	3953	3004	7.8

*****SWM*****

PERSONNEL

By the Office Force

The Boss wishes to report that he was out looking around during the month, Doc now having given him permission to go up between five and six thousand feet. He spent a very pleasant three days at Faraway Ranch with Ed and Lillian Riggs while looking over Chiricahua. The Faraway is just a mile high and the headquarters area a little more and no great inconvenience was suffered except the usual one of eating too much at the Faraway table. Frank's monument was running all right and Corabeth and the three kids were just as pretty as ever. They were in the new house and have much more room than in the first set of quarters we built.

The Fish family, by the way, just grazed tragedy the other day when the oldest child, and she has our sympathy for we have always wondered the same thing, decided to find if the light in the Frigidaire really went out when the door closed. She took out the shelves and put the middle-sized sister in and shut the door. She opened the door and asked for a report but the report didn't seem to be very definite so she got in herself and had the middle sized sister shut the door. Then the middle sized sister couldn't open the door and went on playing about other things. It must have been about an hour before Corabeth, who was doing some washing out in the yard, discovered the situation and ten minutes more would have been too late.

Seeing that Death lost, and we can still smile, we'd like to know: did the light go out?

*****SWM*****

Another trip of the month was to Organ Pipe Cactus National Monument: down and back the same day, the Boss and Hugh going together. One of the incidents of that trip was coming upon a windmill, watering trough, and abandoned house along what we used to call a poor road some twenty years ago in this country, which means it was poor. Hugh got out to make sure no one was living in the house, for the road was going thw wrong way and we needed some information, and guess what he found: one oar! It was ninety miles north to the Gila River and about the same distance east to the Santa Cruz, and both of them were dry! Who wants an oar out in the desert? We argued about it for a while and I still think my theory was perfectly sound, but, as usual, Hugh would have none of it. He thought the man was foresighted and, looking forward to an unusually wet season when the washes in the desert might rise and run, had provided himself with an oar. I scoffed at that and wanted to know why he hadn't provided two oars if that were the case and Hugh thought maybe he only half believed there was any danger and so one oar would naturally satisfy him. My own theory was the house was

PERSONNEL NOTES (CONT.)

occupied by the fellow who is always sticking his oar into somebody else's business; that he was away at the time on official business, probably working a few days for the Park Service. Hugh pointed out that in that case he had plumber's blood in his veins and had left his tool behind him. But I figured that this was his spare oar and he had taken the other with him. I'll leave it with you if that theory doesn't fit all the facts in the case, while Hugh could account for neither the missing oar nor the absence of the owner.

*****SWM*****

The last trip of the month was when I took a Sunday off just as we go to press and ran down to Tumacacori to meet Miss Harlean James and show her Tumacacori, San Xavier, and Saguaro. It was a fine day and I can't say how the others enjoyed it. But the guide had a fine time. The saloon, across the road from the mission, was putting on a barbeque, and for a while it looked like I might lose my audience. But we had our lunch out in front of the mission under the old trees and after that it was no trick at all to get them into the still unfinished museum and so we finished the talk successfully and departed, leaving Ted Cronyn with plenty of customers, although the barbeque was going strong.

*****SWM*****

As we write this, Hugh and Chris are out on a field trip which will run across northern Arizona, northwest New Mexico, and as far as the Arches. We are very hopeful, by the way, of getting a Bureau of Public Roads survey on that entrance road at Arches and build a real road in there. Hugh expects to be out until about the middle of September and will visit several monuments.

*****SWM*****

Parke Soule and the boys in the office have had a pretty heavy month of it, as may be seen in their report, but have stood up well and exhibit no ill effects, partly due, no doubt, to the nearness and persistent use of the new swimming pool which has been opened up over at Vah-ki Inn.

*****SWM*****

Walter Smith, of the Vah-ki Inn, who is known to many of our force from having worked for the Park Service as an engineer, is running for County Supervisor from this district and they say he is making hard going for the present incumbent who is seeking reelection.

*****SWM*****

The Vah-ki Inn is just around the corner and we feel like it is almost a part of our reservation. Don and Ruth Egernmayer have had an

PERSONNEL NOTES (CONT.)

apartment there for some months and now Charlie and Patsy Carter are also quartered there. Which reminds us that Patsy and the pooch walked in about half a mile the other day, the car having expired for lack of gas up near the front gate.

And that reminds us again that the final upshot of that trip to Tumacacori Sunday was that Charlie and Mary Steen ran out of gas about a hundred yards from their house in Coolidge and Don Carlos had to push the car in to the tune of three or four of the neighbor's yapping dogs. Charlie and Mary had just completed a trip to White Sands, Chiricahua, and Tumacacori and he reports all well at those places.

*****SWM*****

Yesterday's mail tells us that Natt, Hap, and the kids will be in from Colorado and their annual leave next Saturday night. School opens Monday morning and Natt will find a well filled desk waiting. They write that they have had a grand time.

*****SWM*****

Bina Bicknell and five relatives drove over from Long Beach to be with Al over Labor Day and she says she will be back with us in a very short time now. Al spent three or four hours cleaning up the house the night before the folks arrived and just as he finished, about ten at night, it blew up a dust storm!

*****SWM*****

Dale King has just returned from a field trip to Chaco and from there, with Dr. Kelly, to Aztec, Mesa Verde, Petrified Forest, Walnut, Sunset, Wupatki, Tuzigoot, and Montezuma Castle. Dale reports the monuments having plenty of visitors and Dr. Kelly reports an interesting trip in which he acquired some information. Dr. Kelly was on the staff of teachers at the Chaco Canyon school this summer and is now on his way back to his Park Service work.

*****SWM*****

While Dale was gone, Hortensia spent the time with the clinic over in Phoenix and we are all glad to hear that she is essentially sound in wind and limb, so to speak, but will have a diet problem to pick up those lost pounds.

*****SWM*****

Last night Don Egermayer drove to the coast: today he is best man at a wedding: tonight he drives home, and tomorrow he says he is going

PERSONNEL NOTES (CONT.)

to work, but that remains to be seen. Whether or not Ruth went I don't know; there was a division of opinion on the matter and we will give the score next month.

*****SWM*****

Tov has been in and out during the month and seems to have plenty on his hands wherever he is. He just refused today to let me change a reinforcing lay-out of the steel in a concrete job: says that stuff is not guessed in there at all and we laymen have got to quit dumping broken spring leaves and barbed wire at random into our concrete. It's all right, Tov, those were other days and other customs, and I'll back you up. But I'm still proud of that side member of a model T frame which is holding up Parke and Jean's fireplace opening. I can still see the grin on the old Indian's face when I brought that in and showed him how we were going to use it.

*****SWM*****

Polly, by the way, is in splendid health and looks as pretty as a picture. It is so very nice to see her able to do all the things she is doing.

*****SWM*****

Louis and Winnie Caywood are off on annual leave. They were up through the Navajo country showing an eastern friend some of the real high spots of the Southwest and some of you will, of course, be sure in that case to see them. Ted Cronyn, in the meantime, holds the place down single-handed except for a little local help on peak days.

*****SWM*****

Betty Jackson and the baby went east this last month to visit the home folks and a little later Earl took annual leave and joined them. We know they will both come back much benefitted by the change and rest from the official grind.

In the meantime, Ed Alberts and the Missus will be running the Castle and if I am not mistaken, he is going to be a busy boy. I am sorry we are unable to arrange relief for these vacations and I want the boys who are taking on this extra work to know that we know what they are getting into and appreciate the spirit with which they do it.

*****SWM*****

Paul Beaubien has been a little extra busy the past month with a heavy run of visitors and the CCC camp getting under way at his place. He had a visit during the month from his sister and brother-in-law. It looks like Paul is going to be able to get a buffer zone of game preservation to the west of his monument to protect that game trail which

PERSONNEL NOTES (CONT.)

crosses the canyon.

*****SWM*****

Davy and Corky have also been busy up at Wupatki and Sunset. They are in an almost ideal situation, being far enough out from the main roads to sort the uninterested from the interested tourists and yet not so far as to be isolated. Two more months and they will be coming south to the Casa Grande job.

Bill Leicht is to transfer to the Boulder Dam from Navajo. Bill is essentially a contact man and his talents in that direction could hardly get fair play at Navajo, so, while we hate to lose him, we are glad to pass him on to a place which will probably appeal more to him. Give us a little more time, by the way, and we will get Boulder Dam on its feet: we have now given them Bob Rose, Don Erskine, and Bill Leicht.

*****SWM*****

Jumping the gun a little, it looks now like Jim and Sallie Brewer may go over to Navajo, they both being pretty good Navajos and liking that country and having had some pioneering experiences and liking front-line work. We haven't cleared the papers yet and you never know for certain until after they come through, but that is the way the cards lie now.

*****SWM*****

In the meantime, Milton Wetherill will fill in if a man is needed to stop the gap at Navajo and we know the job will be done right. Here's hoping Milt has better luck on the next ranger examination for we can give him a couple of jobs if he can ever top the list.

*****SWM*****

Johnwill Faris had a good run of visitors we noticed, and we have talked to some who wanted to get in but could not on account of the rains.

*****SWM*****

Bill and Sallie Lippincott, who started the season at Canyon de Chelly, resigned and have gone into the Indian trading business. We understand that they will run the Wide Ruins Trading Post and I am sure they will be glad to greet all of us who go back and forth through that country.

*****SWM*****

PERSONNEL NOTES (CONT.)

Carroll Miller had a heavy month at Aztec with his visitors and in addition bossing a gang of workers from the Indian CCC Mobile Unit which Gordon loaned him from the Chaco Canyon.

*****SWM*****

Lewis McKinney had a heavier month than we gave him credit for. We had to close the statistical table before his delayed report reached us and after holding it open two or three days with him the only man out, we did some estimating and closed her up. Two days later his report came through and we found we had robbed him of quite a number of visitors. However, if we have to err, we would rather have the error on the low side. We were glad to get a complete tabulation of the movements of the Braced-up Rock for three months from Lewis. We have turned the figures over to Tov and will try to find if there is any system about its movement.

*****SWM*****

We know you will be glad to learn that Little Bert Boundey came safely through his appendicitis operation and is well again. It was a close call and we are glad he came out of it so well.

*****SWM*****

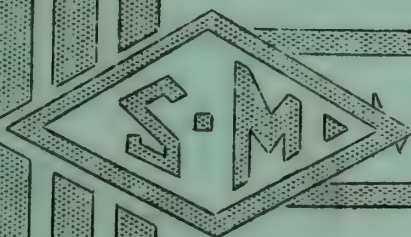
Cy and the boys up at Bandelier seem to have kept pretty busy too. We are glad to note that the museum is gradually coming along and we hope it will be ready to go into regular service next season.

*****SWM*****

We might warn Tom Charles, when he says that he will have to continue to prove the existence of the pastel pictures on the old lake by Hugh Miller, he is leaning on a mighty weak reed. Hugh and that Brass Hat turned me down cold, as I told you last month, on my cactus story, and who are they that I am going to believe any story they tell me? I'll swap them, yarn for yarn, but I take no mirages until they swallow my cactus. Of course, Tom, you are in a different class, a simple soul and passing honest, and, barring anything connected with the White Sands, I'd be inclined to take your word almost every time.

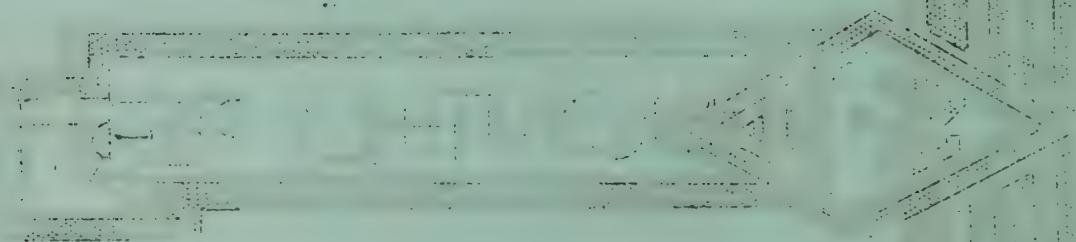
*****SWM*****

THE Supplement



MONTHLY REPORT

THE BIBLICAL ARCHAEOLOGIST



SUPPLEMENTAL OBSERVATIONS

TO A HERMIT THRUSH
(At Bandelier)

Oh shy drab bird of mountain solitude
Of silent wing and quiet, modest mien;
Content to dwell and rear your speckled brood
Unnoticed, sometimes heard but seldom seen;
I've often wished that I might win your friendship
And, in the silence of some fern-flanked glen,
Absorb the peaceful quiet of a kinship
So rich with birds; alas, so rare with men.

When shadows stretch their length across Tuyonyi,
Frijoles Canyon greets the eve of rest,
The night-wind comes like someone eager, lonely.
A silver-lined cloud glows in the west.
Then, from the shad'wy, whispering boxelders
Beneath whose skirts the Rito seeks to hide,
Your minors swell, their limpid golden splendors
Full as the moon, resistless as the tide.

As daylight weakens, other birds are silent.
The dusk is hushed to better hear your song
When, clear and flute-like, sweet with tender sadness
You bid the day adieu. The night has come.
Forgotten in the daylight's rush and hurry,
When evening brings me rest and thoughts are deep,
Refreshed, I 'wait your song--your hour of glory
To fill my soul with peace that welcomes sleep.

When my brief day of life is in its evening
And night, so restful, settles down on me,
Oh thrush, come to my window swiftly winging
And close my eyes with haunting melody.

N.N.D.

During July we collected 51 flowering plants on the monument. As yet it has been impossible to get an identification of the plants we have. However, Dr. Colton suggested that we could, with the aid of their botanist, identify many of our plants by comparing them with those in the collection of the Museum of Northern Arizona.

In compliance with Park Naturalist King's suggestion, we have been collecting extra specimens of all Scrophulariaceae for Dr. Pennell of the Academy of Natural Sciences. The following birds have been seen on the monument during July: Scott's Oriole, Canyon Wren, Rock Wren, Western Mockingbird, poorwill, Western Meadowlark, White-rumped Shrike, House Finch, Say Phoebe, Western Mourning Dove, Jay, Black-throated Sparrow, Western Warbling Vireo, Sparrow Hawk, Red-tailed Hawk and Great Horned Owl.

In the box canyon, just below the Citadel, we found a family of Great Horned Owls, two adults and three young. Upon inquiry, we found that they have been in this area for the last twenty years; at least a pair of owls has. I don't know whether we can band them or not, but can try if Headquarters will send us the bands. If you know of anyone particularly interested in owl pellets, we certainly have them. There have been several nests in the ruins which have been robbed by the bull snakes and a cat. It seems that every time we locate a nest, it is robbed a few days later. There is a price on the cat's head.

In the last few days we have started banding young birds that stay in the bushes around the ruins. At this writing we have banded four Western Warbling Vireos. By the end of this next month I hope to be able to fix the watering trough at the spring so that we can band birds there. We should do well, as it is the only watering place near, except for Heiser Spring where we can do the same thing.

In talking to Clyde the other day I found that the Navajos do not kill the poorwill, but consider it very beneficial. A bit of sand from a poorwill nest, placed in a pouch and hung from a post in the corral will keep the sheep warm in the winter and prevent the lambs from freezing in the spring. Before this goes too far, I am going to look in Clyde's corral to see if he practices what he preaches.

A number of interesting visitors during July have been the rock squirrels. A pair moved into one of the rooms and, not satisfied with the facilities, decided that our kitchen was the best place for them. Daily they would make trips of inspections (while we were outside) and pick the choice apples and onions out of our supply. After eating onions I wonder how they liked sleeping together in the same room? We finally forced them to vacate because of the fact that the Park Service requires five dollars a month rent for each room.

NATURE NOTES FROM WUPATKI (CONT)

They are now inhabiting the Citadel.

Mrs. E. T. Nichols observed the family life of the resident rock wrens, and has promised a report.

Prospects for bird banding look good as there will be a good crop of juniper berries this fall. I hope to be able to build a control for the water at the storage tank by the end of next month.

Four antelope were sighted about six miles from Wupatki on the Sunset Crater road.

*** **SWM*** **

CHIRICAHUA BIRD NOTES

By Gordon G. Philp

The Chiricahua Mountains have long been known by bird students for their abundance of bird life. On all sides the slopes of this range fall away into flat valleys. The Chiricahuas may be considered as constituting a mountain island, for the life supported is so vastly different from that found in the surrounding flat lands. The line of division is so definite that, within a remarkable short distance, the fauna is radically different.

It might be of interest to list a few examples to better illustrate this line of division. Mockingbirds have been seen repeatedly in the valley, on the very threshold of this range, but still I have yet to see one a bare two miles up the canyon. The Swainson Hawk is abundant in the valleys, but scarce or entirely wanting upon the monument. The range of the Gambel Quail stops quite abruptly at the foot of the mountain slopes. Numerous other species are stopped by this zone wall. The majority remain on one side or the other. However, some birds are equally at home on both sides, the most noticeable at present being the Cassin Kingbird.

Although the reason for this zonal division is quite evident and in most cases understood, it is none the less of outstanding interest. The presence in the mountains of such a variety of trees is in itself an attraction, for it is these very trees which play a part in assuring an abundance of insects and fruits as food for the birds. To many birds, trees are indispensable.

The Band-tailed Pigeons nesting upon the monument at the time of this writing (July) are well worth any observer's time. In spite of the fact that no longer can we hope to see them in their former abundance, the sight of this largest of wild United States pigeons is none the less inspiring. Many of this species may be found here, some nesting, some merely going about their every day life. The

CHIRICAHUA BIRD NOTES (CONT)

parental duties of this bird are rather exanting. Being favored with a nest over our camp sight, I have had numerous opportunities for close observation. Both male and female served time at the incubating; each spent approximately twelve hours upon the nest, the changes being made in the neighborhood of seven A.M. and seven P.M. Soon before the hatching of the single white egg, the nest underwent remodeling, as it most certainly should have. A poorer structure I don't believe could be made. From near-by oaks were gathered small twigs, and for some reason, all that were broken off would not do, although no appreciable difference was noticeable. The forager returned with his find and together the two birds placed it. At this writing, the young has just hatched, so no further observations have been made.

Three species of jays are upon the monument; Arizona, Long-crested and Pinyon, the latter two being the least common. Hawks are quite plentiful upon the flat grazing land just outside the monument. However, within Chiricahua only one species has been noticed. A Cooper Hawk was found nesting some thirty feet up in an Alligator-bark Juniper tree. Four well-developed young are at present fast reaching maturity. Both adults tended the young, but a great deal of the time the male was away foraging for food. However, the female took the place of both in so far as protection was concerned. Seldom could one approach the vicinity without being scolded and often swooped upon. As is already known, this species subsists mainly upon birds, and this family proved to be no exception. The remains of a nestling was found, but identification was out of the question. Numerous pellets are in evidence upon the floor of the nest, each containing feathers. One cannot help but think of the enormous amount of food necessary to sustain such a family. Having kept young hawks in captivity, I am familiar with their appetite. One young Cooper Hawk (15-20 days of age) could very easily consume two birds the size of a robin daily. Of course, it is another matter whether or not nestlings get their fill; personally, I doubt it. In the first place, could the parents supply this amount and still retain enough for their own sustenance? I don't wish to convey the impression that such killers are to be condemned and shot upon sight. This hawk, like all other life upon the earth, was put here for a very definite purpose--let's let him serve that purpose.

At this time, the Western Robin is one of the most plentiful of our birds, the only possible exception being the Western Wood Pewee, which may be seen most any time one cares to look. The first mentioned is nesting here. The site has just been located in the uppermost branches of a fifteen foot tree. The young are rapidly filling the nest with their bulky forms. Nuthatches, Black-eared and Rocky Mountain are occasionally encountered. The Bridled Titmouse, one of the most attractive of the species, may often be seen and heard. The Black-throated Gray Warbler is common and, to date, the only warbler recorded. The Spurred Towhee is more often heard than seen, as is his relative the Black-headed Grosbeak. This latter bird is so prodigal with song

CHIRICAHUA BIRD NOTES (CONT)

during the early morning that sleep is difficult. Mearns and Arizona Woodpeckers are occasionally encountered, sometimes busily tapping, sometimes sitting quietly to avoid detection. The Red-shafted Flicker, the bird so adaptable to varied environmental conditions, may often be heard giving his rolling call.

The nest of the Spurred Towhee has been located upon the monument. Built upon the ground beneath a poison oak plant and nestled deeply in dry grass, it is an outstanding example of concealment.

The forgoing does not, I am certain, include all the birds of this area at present. Innumerable species are always overlooked at first, due to their size, habitat, or inconspicuous coloration. The fall migration will bring a sizeable flow of birds into Chiricahua, for such a paradise could not possibly be overlooked by our avian friends.

*****SWM*****

COMMENTS FROM CHIRICAHUA

By Frank Fish

"Gil". Philp came over from Tumacacori on June 30 and imported a baby Swainson Hawk from that monument. Due to its large pop-eyes, we named it "Charley" after C. McCarthy. On July 2, in scouting around, we found a Cooper Hawk's nest with four young. We appropriated one to keep Charley company and for photographic purposes. When Louis and Winnie Caywood came over for a visit during the month, the young hawks apparently got into an argument over the attractions of their respective monuments and decided to end the question definitely. Charley must have led with a right, a fatal move, because Kid Cooper came back with a blow to the beak that literally tore Charley's head off. At least, we found Kid Cooper eating Charley, and the head was missing when the tragedy was discovered. However, Charley had the last laugh--Kid Cooper died a few days later, apparently from constipation.

*****SWM*****

MONTEZUMA MUSINGS

By Earl Jackson

The Arizona Sycamore (*Platanus wrightii*) has the interesting habit of out-growing its clothes every spring after the sap comes up, and sheds its outer bark all over the place. But we had not noticed, until this year, that this tree may get growing pains at other times of the year too. After the long dry spell of early summer, our July rains came. And with these came a renewed burst of expansion on the part of sycamore trunks. Of course, this tendency of a tree to put on two growth rings in a year is nothing rare, but is interesting when so dramatic.

We have a mesquite (*Prosopis velutina*) which has gone against the laws of its nature. Instead of growing all normal bean pods, two of

MONTEZUMA MUSINGS (CONT)

its stems have produced beans each with its individual cell, and these hang from a slender central stem like a cluster of bananas.

An interesting observation was made by Betty the other day on the fish population of this creek. Of late years the native perch were thought to be rapidly approaching extinction. At the same time, there has been a definite increase in the carp population.

This summer there have been more young perch produced in this stream than I have seen in 15 years or so of living intermittently on its banks; and there are fewer young carp than we have ever seen. Our aquarium showed us what may have been the matter with the carp. When we put carp into an aquarium with perch, the perch kill them all and eat the tiny ones. And, with more perch than usual in the creek, we probably have the explanation for the relative scarcity of carp.

I just stepped out my back door. Thirty feet from the house is a leaky hydrant. We leave it that way on purpose, so that it forms a little oasis of green grass and weeds. Two cottontail rabbits and one very large jack rabbit were eating at the oasis. The cottontails scampered off unhurriedly. The jack rabbit went off a few feet, then seeing that I had stopped, came back to eat. So I stood within 25 feet of him as he contentedly munched on the tender grass, sampling the leaves of a young cottonwood but deciding such plebian growth was not for his palate, and going back to his grass. He is a gray color all over, but the tips of his ears on the outside are jet black, and his tail is black.

The lizard and toad populations are simply enormous this year. The south wall of the comfort station is directly on the trail where all visitors pass in going to the ruins. A hydrant in the wall leaks a drop every few seconds, and this drip falls into a depression about the size of a man's hand, a few inches above ground, with a gentle slope leading down the little shelf to the solid earth. Here, yesterday, a very large toad languidly reposed throughout the daylight hours, untroubled by the public, gazing at all and sundry passersby with the abstract glance of the cosmic philosopher, accepting the frequent drop of water on his back as complacently as he did the hurried footsteps of people desperately trying to leave in time to drive another 200 miles before dark.

*****SWM*****

BIRDS AT MONTEZUMA CASTLE

By Betty Jackson

Birds seen during July on the monument were as follows: Arizona Cardinal, Long-tailed Chat, Western Mourning Dove, White-winged Dove, Red-shafted Flicker, Ash-throated Flycatcher, Vermilion Flycatcher, Flycatcher sp., Western Gnatcatcher, Red-tailed Hawk, Green Heron, Treganza Blue Heron, Black-chinned Hummingbird, Wood Ibis, Killdeer,

BIRDS AT MONTEZUMA CASTLE (CONT)

Arkansas Kingbird, Cassin Kingbird, American Merganser, Western Mockingbird, Texas Nighthawk, Arizona Hooded Oriole, Black Phoebe, Arizona Pyrrhuloxia, Gambel Quail, American Raven, Road-runner, Desert Black-throated sparrow, Cliff Swallow, Hepatic Tanager, Crissal Thrasher, Turkey Vulture, Lucy Warbler, Warbler sp., Cactus Woodpecker, Baird-Bewick Wren, Canyon Wren, and Rock Wren.

When Matt Dodge came on June 25, we didn't have much luck in finding the birds I wanted him to see, because it was right around noon and the temperature was 107°. We did see the female oriole get off her nest in the grapevines, however. She has since abandoned it, though I don't know why; but I saw her collecting lint on July 6, possibly for a new nest. Matt and I saw something else. A kingbird was sitting on a rock in the creek, a foot or two from shore, when one of our big carp came up under him and made a big splash. The Kingbird flew away in a hurry, of course. It is hard not to theorize about what the carp was doing. It looked as if he were trying to catch the bird!

On the 26th, the first Long-tailed Chat of the season appeared in the vines by our bedroom window. And yesterday it, or another one, took me on a long walk through the mesquites by sitting on the other side of every bush and singing. He'd wait until I was almost close enough to see him, and then would fly to the next bush, keeping something between him and me all the time. It must have taken me half an hour or more to identify him. To add to my confusion, he lit in a bush with a cardinal several times, and somehow induced him to do the singing, so I got terribly mixed up till I saw the Cardinal go one way, the chat another. My notes describe his song as "A high chat-chat-chat-chat, a low chatter, and a gulp." The gulp is quite a musical liquid note.

I suppose most people have heard the squeaking of Cliff Swallows in flight. They were wheeling above me yesterday sounding like a wagon whose wheels were badly in need of oil.

After the phainopepla's appearance last month I was not as surprised as I might have been at the sight of an Arizona Pyrrhuloxia. I saw him first June 27, and again July 13 with his mate. They were very close, and the bill color, as well as the rest, struck my eye. Instead of the "yellowish in summer" as Bailey describes it, it was coral-colored.

We've seen a lot of young quail on the monument. On June 28 I saw a family of nine young quail, just able to fly. On the 30th Mrs. Jackson saw an uncountable number of little ones picking around in some dead sycamore leaves. She couldn't count them because they were only visible when balanced on top of a leaf. A family with five little ones has come down to the creek each morning for about a week, and yesterday we saw another bunch of seven, with Papa herding them.

BIRDS AT MONTEZUMA CASTLE (CONT)

Three young Black Phoebes were learning all about the art of catching insects on June 28. They were quite undisturbed by Earl and me as we walked along saving little fish from the drying up puddles. On July 4 a female Cactus Woodpecker and one of her young ones were working on a sycamore trunk close to the milling visitors. The youngster was nearly as big as his mother. Since July 2 we have seen groups of House Finches everywhere. The young ones flying, but apparently are not adept at getting food. They follow their parents around through the trees, screaming and twittering, while the parents try to get food enough for them. Smaller ones were screeching from their nest in the sycamore over the tent on July 9.

Wood Ibis! Thirteen of them flying over! At first I thought they were Blue Herons, but as I got the glasses on them I saw they were white with black heads and black edgings on the backs of their wings. Earl and I watched them soar upward and eastward until they were lost from sight. At first I wasn't sure they were Ibis, but Norman said he'd seen some on the Verde River this time last year, and they appeared there right afterwards. Seeing them at close range there was no doubt.

Camp Verde is now all excited about them. Someone asked me last week what they were, where they came from and what they eat. I'll repeat one thing I found out, since it was very interesting. To get food a heron stands in or at the edge of the water, perfectly still till he sees a fish, then spikes it with his bill, or if it is small, tosses it down his throat. The Wood Ibis, however, wades right in, stirs up all the mud it can and makes an awful commotion. The fish have to come up through the mud to the surface for air, so the Ibis grabs them with his powerfull bill. He never spikes them.

On July 11 Edward Fleisher from Brooklyn, N. Y., who is a member of the Linnaean and Audubon Societies, and, incidentally (I gather) a mathematics professor, came in bursting with news and questions about birds. He spent several hours with field glasses, and then came in to check with me. He saw a lot of my favorite birds and added one new one, the Western Gnatcatcher. Since the place he saw it is outside my usual bird circuit, I've only been down there once and haven't seen it. But I'm glad to hear it is on the monument!

On July 12 I found a Western Mourning Dove nest with two white eggs in it, and on the 13th found two more nests, one with eggs, the other with two fluffy babies. The parents flew away from the eggs, but the one with the babies fluttered away in the broken-wing act. That's why I came to look in at all, since it was in a very inaccessible place. Desert Black-throated Sparrows have been around for several months, but on July 18 they decided we were peaceable, and have since done a lot of feeding around the building here. The Mergansers are full grown now but are still staying together. I saw the White-winged Dove here for the first time this year on July 23. Next month I hope to fill in

BIRDS AT MONTEZUMA CASTLE (CONT)

the species of flycatcher and warbler that I have left out. I have at last seen the details of that warbler I've done so much fussing about, and it is the Lucy Warbler.

*****SWM*****

CHACO NATURE NOTES

By Homer Hastings

So far vegetation in the Chaco has not suffered from lack of moisture. Evening primroses are to be found growing at many places in the monument and even in the large courtyard of Pueblo Bonito. In a tributary of the Chaco wash just below Pueblo del Arroyo there is a large patch of sweet peas. The growth is quite dense and should assist in checking erosion at that point.

Last summer many of the plants in the canyon were identified by Dr. Castetter of the University of New Mexico, and this summer I am endeavoring to continue the work. To date the following plants have been identified and specimens placed in the museum herbarium case:

Scientific Name	Common Name
Ephedra viridis	Brigham Young weed; Mormon tea
Ephedra torreyana	" " " " "
Sisymbrium altissimum	
Astragalus mollissimus	Loco weed
Hymenopappus arenosus	
Orisopsis cispidata.	Indian Rice Grass
Cryptanthe occidentalis	Beggar Lice
Stanleya apinnata	
Eriogonum alatum	Wild Buckwheat
Juniperus monosperma	Cedar; juniper
Castilleja integra	Indian cup
Agrostis alba	Red top
Rhus trilobata.	Sumac; lamita
Thelypodium linerifolium	
Rumex hymenosepalus.	Canyagire; dock
Hordeum jubatum	Wild barley
Roripa sinuata	
Lapulla floribunda	
Hilaria Jamesii	Galleta grass
Yucca glauca	Anole; soap weed
Humenoxys Richardsonii	
Aristida longiseta.	Spiney muloy
Abronia torreyi	Sand puffs
Mentzelia albicaulis	
Erigeron divergens.	Horse weed
Cercocarpus parvifolius	Mt. Mahogany
Arysimum asperrimum	Western wall flower

CHACO NATURE NOTES (CONT)

Lesquerella prostrata Bladder pod
Thalypodium integrifolium

Several other ~~specimens~~ specimens have been collected and are yet to be identified.

Throughout most of the summer last year there was a bat which used to inhabit one of the rooms along the back wall of Pueblo Bonito. The room has one of the best roofs in the pueblo and the visitors in observing it would usually notice the bat where he hung head downward from one of the vigas. A few visitors were frightened, but most of them were interested in seeing a live bat at comparatively close quarters. This year a bat has been seen in the same room on several occasions. He has enormous ears and I believe is one of the species commonly known as a rabbit-eared bat. A yellow bird band has been put around one of his hind legs and a spot of India ink in his left ear. We are hoping that he will not consider this treatment too inhospitable, and will not only remain throughout the season, but will return next year.

On July 14 Custodian McKinney and I witnessed a struggle between a four-foot bull snake and a full-grown rabbit. When the snake attacked the rabbit, its distressed squeals attracted our attention. Two other rabbits were seen hopping toward the scene of combat, but our approach frightened them away. We wondered if they would have attacked the snake in an effort to help their fellow in distress. Just before we arrived the rabbit wrenched himself free and scurried away leaving a very thin and doubtless disappointed snake who presently crawled down a hole. Several balls of fur, and earth freshly disturbed by the rabbit's frantic kicks, were all that was left attesting to the desperate struggle.

Russian thistles and greasewood are blooming and purslane is beginning to come up. This plant is more or less succulent herb resembling the cultivated portulaca or moss-rose which belongs to the same family. The cattle-men in this region depend upon purslane to supply late summer feed for the range stock. Last year a visitor reported that the plant is sometimes cooked and eaten as greens or fresh as a salad. We tried some as salad and found it quite palatable with a slight similarity to water cross.

*****SWM*****

JULY BIRD BANDING REPORT FROM CILACO CANYON

By Carolie McKinney

	NEW	REPEAT	RETURN
Canyon Towhee	1	4	0
Northern Shrike	2	1	0
Scaled Quail	2	12	0
Bendire Thrasher	1	0	0

The hot dry weather affected our banding report this month. Few birds were seen on the monument. An early morning quail or an occasional towhee were practically our only bird visitors this month.

BANDELIER OBSERVATIONS

By C. G. Harkins

Bird banding was suspended for the summer on June 1, and the traps were taken up and stored. Betty Jackson was curious to know what returns I had taken that were banded by her. They were as follows: Feb. 15, 1938--a Grey-headed Junco banded Dec. 10, 1935, #34-176925 Trap A. Mar. 7, 1938---a Pink-sided Junco, banded Dec. 10, 1935, #34-176926 Trap B. These traps were located at the Ranger Station in the upper end of the canyon in the same locality where the birds were banded.

Following is a list of the birds noted on the monument during July: Cooper Hawk, Turkey Vulture, White-throated Swift, Broadtailed Hummingbird, Red-shafted Flicker, Flycatcher of genus Empidonax, Long crested Jay, Pinyon Jay, Pygmy Nuthatch, Western House Wren, Canyon Wren, Western Robin, Audubon Hermit Thrush, Plumbeous Vireo, Western Tanager and Rocky Mountain Black-headed Grosbeak.

*****SWM*****

CASA GRANDE NOTES

By Don Eggermayer

With respect to the appearance of the Night-blooming Cercus blossoms reported last month, it is interesting to note that all three plants at Vah-ki Inn, a half mile east and south, bloomed on the same night as those on the monument.

Following several heavy summer thunder showers, the creosote bushes along the drainage ditch banks flanking the entrance road are turning green and putting out scattered blossoms. It seems that with proper moisture conditions, these plants will blossom regardless of season.

The usual millipede activity has been noted. Following rains, hundreds of these chocolate colored, worm-like creatures are seen crawling rapidly over the ground. The mortality is high on the entrance road.

Although seen only once, it is evident that a family of skunks have established themselves under the Old House in Compound A, occupied by the Dodges and the bachelors.

*****SWM*****

HEADQUARTERS HAPPENINGS

By the naturalists

A nestling cactus wren with only one eye, banded in the nest on May 22, is frequently seen about the residences and office buildings. His habit of running around the corner of a building with his "good" eye toward the wall and the consequent fright he receives when he almost runs into some person, together with his awkward failures in

HEADQUARTERS HAPPENINGS (CONT)

alighting on a tree limb due to an inability to accurately judge distance, arouses a mixed feeling of mirth and pity in the observer. In July he received a wing injury which grounded him for several days, but as this is written he is flying about again in the customary erratic manner which serves to identify him.

Although many rattlesnakes were seen on the canal bank by the enrollees of the Casa Grande Side Camp in the spring, none has been reported in the last two months. An occasional king and gopher snake is observed while whip snakes are fairly common. One of the latter was discovered by Mother Pinkley attempting to enter her house through the back door. Mrs. Pinkley attacked the intruder with a broom, and the snake beat a hasty retreat up a mesquite tree where it seemed quite at home among the branches and twigs ten feet above the ground.

Tree-climbing rabbits constitute a wildlife feature about headquarters. This ability is not a species characteristic, but is due to the growth habit of many of the mesquite trees whose trunks stand at an angle which permits the rabbits to get up among the horizontal branches.

Rabbits are so common about headquarters that little attention is paid them by the personnel, but visitors get quite excited over them and may frequently be seen stalking them with cameras. On hot days it is not unusual to see one or more of the cottontails stretched out at ease on the cool, moist ground beneath one of the residence or office coolers.

*****SWM*****



Note: The above figure occasionally used as "filler" in the Supplement has been the subject of some comment and requests as to its identity have been received. Someone guessed that it must be an amoeba, which prompts the following explanation.

A study of life figures on Hohokam red-on-buff pottery revealed numerous forms of both human and animal representations among which were several unmistakably of birds. The above evidently is a male Gambel Quail intent on picking up some object from the ground.. Ed.

RANDOM PAPERS

FROM THE VISITORS' ANGLE

By Louis J. Miller and Joseph H. Ruetz

(Letters to the Superintendent from visitors to one or several of the Southwestern Monuments constitute frequent arrivals in the mail. Occasionally one is received which is somewhat out of the ordinary, either in context or because of the factors which inspire it. Following is one which has been received recently, written by two Indiana boys who, packs on backs, hiked over some of the roughest and most isolated parts of southeastern Utah and northeastern Arizona. What they write about their trip may be of value as well as interest.)

We have just returned from two months spent in and about several of your Southwestern Monuments and find it impossible to suppress our appreciation to you, as Superintendent, as well as to those who had charge of the monuments we visited.

Our first contact with your scenic and hospitable Southwest was in Blanding, Utah, where we met Zeke Johnson. To two greenhorns from the Midwest, he extended a warm welcome, told us of the country thereabouts, and outlined a trip for us. I might mention that we were not traveling astride horse or burro, but were carrying food, supplies, blankets, and cooking utensils on our backs.

The trip Zeke outlined took us down the bed of White Canyon to the Colorado River, along the Colorado to Red Canyon, and continuing along the Colorado to a gap in the rocks at Rincon which would take us in a southwesterly direction to Cedar Canyon, then through another Canyon to Jones' Tank. Along this trail for seven or eight miles, any small canyon takes you into Maki Canyon. From Maki Canyon, the trail leads south into Castle Wash whose head is south of Irish Green Spring. The return is by Red House, Greicahim, and finally the Natural Bridges.

FROM THE VISITORS' ANGLE (CONT.)

It was a stiff hike, as we discovered, and an unplanned delay along the trail was a drain on our minimum food supply beyond the extent of our original plans. The result was that, after reaching Cedar Canyon and exploring thereabouts, lack of food necessitated backtracking to the Natural Bridges. It was a hardship, but for two young fellows intent upon a little adventure, it was an experience never to be forgotten, and one that will pay us lasting dividends as to an appreciation of home and the modest comforts of life.

Of this portion of the trip--three weeks--we must acknowledge that the four days spent hiking to and in the vicinity of the Natural Bridges made the high spot. The fresh waters, the natural shelters, the majestic arches of the great bridges encompassing the sparkling portions of God's firmament, all leave with us a treasure of scenic memory that we know shall never fade.

The second part of our trip took us Arizona way, thence to Navajo Mountain area and Rainbow Natural Bridge. Down in Kayenta and particularly at the great Indian ruins, Betatakin, Keet Seel, and Inscription House, we struck it rich--rich in the charming personality of Ranger Bill Leicht, rich in an enchanting atmosphere peculiar to Betatakin by moonlight, and rich over again in the generosity of Bill Leicht who played host to us unstintingly for three days.

Rainbow Bridge, notwithstanding the days spent at Betatakin in the company of a fine personality, shall hold a place in our memories second to none. As I told Bill himself, my visit to Betatakin with his companionship has done more to stimulate a studious interest in the historic aspects of the Southwest than anything else ever did. Merely national ideas about the grandeur, romance, as well as the realism of the Southwest became real for the first time. To put it in slang, "Arizona and the Southwest is under my skin"; and my partner says the same. To all indications, the Southwest henceforth will be an academic avocation for me; and a permanent interest, from an anthropological viewpoint, to my companion.

After our enjoyment of Betatakin, Keet Seel, and Inscription House, we continued to the Rainbow Bridge country. Only a week could do justice to the scenery there. After that, we began a hike around Navajo Mountain. We lingered several days in colorful Surprise Valley which, to my mind, deserves being set aside as a national monument for lovers of scenic beauty.

Now that I write you, enjoying again with the aid of pictures and diary your Southwest wonderland, I know that this is but our first sojourn in a land of countless attractions. I wish you continued success in your endeavor to make known the visual miracles of the Southwest to the American Citizen.

*****SWM*****

BIRD BANDING IN SOUTHWESTERN MONUMENTS

The Director,
Bureau of Biological Survey,
U. S. Department of Agriculture,
Washington, D. C.

Dear Mr. Director:

During the fiscal year 1938, bird banding projects in cooperation with your Bureau were carried on in eight of the 26 national monuments which are administered by this office. This represents an increase from five stations to eight, a situation due to increased interest among the personnel.

A total of 1,749 birds of 57 species were banded at the eight stations. This total represents a definite increase over previous years. In 1937, 1,273 birds of 63 species were banded at five stations. In 1936 a total of 1,547 birds of 63 species were banded at nine stations. The decrease in number of species is partially attributable to the fact that our station operators are now concentrating their activities on fewer species to gain more complete information, and partially to the fact that two of the operators in areas which band many species were curtailed somewhat in their activities, due to sickness and other factors.

It is obvious that the longer a bird banding program continues, the more valuable and more numerous are the results. The program in the Southwestern Monuments is so relatively young that it has not yet resulted in published scientific contributions, but much valuable data have been gathered, and are in process of study. Every effort is made by all banders to concentrate upon specific problems which remain unstudied in the little-known ornithology of the Southwest. Such concentration is necessary when it is remembered that much of the banding is still being done, as in former years, on personal time.

To give an idea of problems on which we have accumulated data, some are listed below. On certain questions our findings concern only one species; on others several species have yielded information.

Do males, females, and young travel together? Is there movement or migration among so-called permanent resident species? What is the manner of dispersal of young from the nest vicinity? Do hunters kill the breeding or migrating Western Mourning doves? What is the effect of weather on movements?

What is the longevity of various species (unknown for many of the species we band).

BIRD BANDING IN SOUTHWESTERN MONUMENTS (CONT.)

What is the preferred habitat of each species? What is the effect of changes in moisture, vegetative covering, etc.?

Why are White-winged Doves so scarce in the southern monuments? Why such a scarcity of nests in 1938?

What is the relation, if any, between bird population and insect infestations of trees such as the boxelders at Bandelier and the mesquite at Casa Grande?

Gambel Sparrows are proving a fertile field of study. Information is being obtained regarding their exact migration routes, establishment and defense of delimited winter territories, foraging range, "homing instinct", response to weather conditions, etc. A paper is now in preparation.

The Walnut Canyon station, through the color banding of adult Juncos before nesting and subsequent bandings of nestlings, may contribute some knowledge valuable for clarification of varietal determinations.

Gambel Quail are producing some interesting notes on area carrying capacities, sex ratios, population, mating patterns and permanency, and extent and direction of covey movement, diurnal, seasonal, and annual.

Attempts recently have been made with some success to capture raptorial birds with the Verball Pole Trap. It is hoped that a high percentage of returns will be gained from this work.

During the fiscal year only two noteworthy recoveries were recorded. A Gray-headed Junco banded by Operator Paul L. Beaubien at Walnut Canyon National Monument, Flagstaff, Arizona, on October 27, 1936, was found dead by an Indian at Carriso Canyon, Arizona, in the White Mountains on May 30, 1937. Although this recovery was made in the previous fiscal year, it was not reported until this fiscal year.

A Red-eyed Cowbird, banded by Operator Louis Caywood, of Tumacacori National Monument, on July 15, 1936, was found injured at Ruby, Arizona, (12 miles south) on July 4, 1937.

Brief resumes of the work at each station follow:

BANDELIER NATIONAL MONUMENT

Frijoles Canyon, approximately 39 miles northwest of Santa Fe, New Mexico. Transition zone. Altitude, 5,600 feet.

Custodian C. G. Harkins, with the help of George Sholly and CCC assistants resumed banding activities at this monument which had lapsed during the 1937 fiscal year. Starting very late, a total of 161 new

BIRD BANDING IN SOUTHWESTERN MONUMENTS (CONT.)

bands were issued, and records were kept in very accurate form. Juncos formed the major part of birds banded, but it is hoped that the number of banded species will be increased during the next fiscal year.

CHACO CANYON NATIONAL MONUMENT

64 miles south of Aztec, New Mexico. Upper Sonoran Zone. Altitude, 6,500 feet.

Just before the end of the fiscal year Mrs. Carolie McKinney, wife of the Custodian, started banding operations and within two weeks was able to band 19 new birds, as well as catching one of the birds which was banded at the monument three years previous.

This station promises to be very productive, and will be very interesting because no banding of any consequence has been made in the general region. Considerable numbers of Scaled Quail occur naturally on the monument, and Mrs. McKinney is having some success in trapping them. This species has not been banded by Southwestern Monuments previously.

Much Soil Conservation work has been done in recent years in Chaco Canyon, a notably desertic and eroded area, and it will be interesting to correlate the banding records with the change in vegetative cover as the Soil Conservation-planted plants mature.

SOUTHWESTERN MONUMENTS HEADQUARTERS, COOLIDGE, ARIZONA.

Lower Sonoran Zone. Altitude, 1,420 feet. Junior Naturalist Natt N. Dodge and collaborator John E. Fast, with some help by Operator Dale King, succeeded in banding almost 500 new birds for this productive station. As in previous years, Gambel Sparrows made up almost one third of the totals, and much valuable data are being accumulated on this species. John E. Fast, of Oak Park, Illinois, has spent a considerable portion of the winter months at this station during the last three years in banding operations and this summer is tabulating and analyzing the data concerning Gambel Sparrows which have been gathered in the last four years. It is expected that an interesting paper will result, and that some contribution will be made concerning the knowledge of the habits of this species.

NAVAJO NATIONAL MONUMENT

In Betatakin Canyon, near ruin of same name, southwest of Kayenta, Arizona. Transition Zone. Altitude approximately 6,500 feet.

Milton Wetherill, stationed for a time at this monument, banded 15 birds during the fiscal year. Mr. Wetherill is not at the present time connected with the National Park Service, and it is problematical whether

BIRD BANDING IN SOUTHWESTERN MONUMENTS (CONT.)

bird banding operations will be carried on at this monument in the near future.

PIPE SPRING NATIONAL MONUMENT

Four miles from Moccasin, Arizona. Upper Sonoran Zone. Altitude 4,960 feet.

Operator Leonard Heaton banded more birds than any other Southwestern Monuments station--a total of 530. Of these, 468 were Gambel Sparrows. With Gambel Sparrows being banded at so many monument stations, it is expected that recoveries eventually will more clearly define migration routes, and that possible captures of birds by another station will be experienced.

TUMACACORI NATIONAL MONUMENT

Nineteen miles north of Nogales, Arizona, in Santa Cruz Valley. Lower Sonoran Zone. Altitude, 3,250 feet.

The report of Operator Caywood follows:

Bird banding was done from September 1 to 15, 1937, from January 14 to February 18, 1938, and from March 12 to June 13, 1938, or 140 days of the year. The cooperator was absent from his station on special assignment to the National Park Service Laboratories at Berkeley, California, for two months and was in the hospital at Nogales, Arizona, for one month.

The greatest number of any single species banded was 136 Gambel Sparrows. In 1936-7, 127 of these birds were banded, so it would seem that during this past year some returns would be trapped. But there was not a single one. At Casa Grande National Monument a number of returns were taken from Gambel Sparrows banded in previous years. It seems odd that with such a number of birds banded here no returns resulted.

Canyon Towhees, cardinals, and pyrrhuloxias were constant repeaters. Twelve cardinals and ten pyrrhuloxia were banded this year. Four shy Green-tailed Towhees were banded and one return was taken which had been banded in 1936.

Eighteen Gambel Quail were banded this year, making a total of 97 quail banded since April, 1936. Only one return has been reported to the Biological Survey from this number banded.

During the entire year there were only three casualties. Two were birds that flew against objects after being released and one bird was left in a trap too long, dying from exposure to the sun.

BIRD BANDING IN SOUTHWESTERN MONUMENTS (CONT.)

With two years of banding completed, this next year should bring some interesting results in the way of life histories and returns or non-returns to this locality of migratory birds.

Three nestling Roadrunners were banded while still too young to leave the nest. It is hoped that some interesting observations may be made on these.

WALNUT CANYON NATIONAL MONUMENT

Ten miles east-southeast of Flagstaff, Arizona. Transition Zone. Altitude, 6,700 feet.

Operator Paul Beaubien again banded a respectable total, 275 birds of 17 species. The establishment of a CCC camp to work on Walnut Canyon National Monument undoubtedly will give Mr. Beaubien more help in the banding program, and an attempt will be made to take advantage of the large migrations of several species which occur at that monument. Three years of valuable observations have now accumulated at this monument, and are being analyzed and tabulated by Mr. Beaubien.

WHITE SANDS NATIONAL MONUMENT

Eighteen miles southwest of Alamogordo, New Mexico. Upper Sonoran Zone. Altitude, 4,500 feet.

Operator James Felton started banding operations at this monument, but was transferred to Fort Jefferson National Monument in Florida before much progress could be made.

He stated in his report: "Banding could be developed here with very little trouble. With proper traps many ducks, and other water birds, could be caught where the flow from the artesian well enters the pond on the new addition to the monument. They gather at this spot to enjoy the warm waters.

"Birds have been rather scarce around the headquarters area. In fact, other than the phoebes and the mocking birds there are only a few strays making their appearance here. Good trapping could be had on the water hole at Adobe Walls but this would mean spending full time out there when banding. During the migratory period excellent returns for the time expended could be made."

Respectfully submitted,

Frank Pinkley,
Superintendent.

By: Dale S. King Park Naturalist.

BIRD BANDING TOTALS, FISCAL YEAR 1938

	Bande- lier	Chaco Canyon	Head- qtrs.	Navajo	Pipe Spring	Tuma- cacori	Walnut Canyon	White Sands	Total 1938	Total '36, '37	Banded in U.S. in 1937
1. Blackbird, Red-wgd	0	1	0	0	0	0	0	15	16	18	3994
2. Blackbird, Yellow-hd	0	0	0	1	0	0	0	0	0	0	168
3. Bluebird, Chestnut-bkd	0	0	8	0	0	0	67	0	75	494	502
4. Bluebird, Mountain	0	0	0	0	0	0	0	0	0	1	38
5. Bunting, Lazuli	0	0	0	0	0	0	0	0	0	1	29
6. Cardinal, Arizona	0	0	1	0	0	12	0	0	13	32	1344
7. Chat, Long-tailed	0	0	0	0	2	0	0	0	2	2	93
8. Chickadee, Mountain	0	0	0	0	0	0	1	0	1	5	57
9. Cowbird	0	0	0	0	0	0	0	0	0	1	6161
10. Cowbird, Red-eyed	0	0	0	0	0	0	0	0	0	3	0
11. Crossbill, Bendire	0	0	0	0	0	0	77	0	77	37	35
12. Creeper, Rocky Mtn.	0	0	0	0	0	0	0	0	0	2	0
13. Dove, Inca	0	0	3	0	0	0	0	0	3	14	192
14. Dove, W. Mourning	0	0	15	0	0	0	0	0	15	22	1911
15. Dove, White-winged	0	0	0	0	0	0	0	0	0	3	10
16. Finch, House	0	0	140	0	3	7	0	0	150	200	3426
17. Flicker, Red-shafted	0	0	0	0	1	0	1	0	2	2	10
18. Flycatcher, Ariz.-crst	0	0	0	0	2	0	0	0	3	8	22
19. Flycatcher, Ash-thrtd	0	0	0	0	0	0	0	0	0	1	6
20. Flycatcher, Vermilion	0	0	0	0	0	0	0	0	0	6	0
21. Goldfinch, Green-bkd	0	0	0	0	2	0	0	0	2	2	147
22. Grosbeak, Ariz. Blue	0	0	0	0	0	0	0	0	0	2	1
23. Grosbeak, Black-hded	0	0	0	0	0	0	0	0	0	3	80
24. Grosbeak, RM Evening	0	0	0	0	0	0	2	0	2	3	256
25. Hawk, Desert Sparrow	0	0	0	0	0	0	0	0	0	5	102
26. Hawk, W. Red-tailed*	0	0	1	0	0	0	0	0	1	0	42
27. Jay, Arizona	0	0	0	0	0	0	0	0	0	1	0
28. Jay, Long-crested	1	0	0	0	0	0	1	0	2	2	32
29. Jay, Woodhouse	0	0	0	0	0	0	0	0	0	9	9
30. Junco, Gray-headed	120	0	0	1	0	0	6	0	127	98	284
31. Junco, Montana	13	0	0	1	0	0	0	0	14	5	17996
32. Junco, oreganus	0	0	2	0	0	0	0	0	2	29	17966
33. Junco, Pink-sided	12	0	0	0	0	0	1	0	13	20	17966
34. Junco, Red-backed	6	0	0	0	0	0	10	0	16	67	284
35. Junco, Shufeldt	3	0	0	11	0	0	7	0	21	138	17966
36. Junco, Slate-colored	0	0	0	0	0	0	0	0	0	1	17966
37. Kingbird, Arkansas	0	0	0	0	0	0	0	0	0	8	142
38. Mockingbird, Western	0	0	0	0	0	0	0	0	0	73	728
39. Nuthatch, Pygmy	0	0	0	0	0	0	72	0	72	84	83
40. Nuthatch, Rocky Mtn.	0	0	0	0	0	0	5	0	5	13	0
41. Oriole, Bullock	0	0	0	0	1	0	0	0	1	2	86
42. Oriole, Ariz. Hooded	0	0	0	0	0	0	0	0	0	4	45
43. Owl, Mexican Screech	0	0	0	0	0	0	0	0	0	1	106
44. Owl, Pallid Horned	0	0	4	0	0	0	0	0	4	3	58
45. Phainopepla	0	0	0	0	0	0	0	0	0	6	9
46. Phoebe, Say	0	0	2	0	0	8	0	8	18	46	24
47. Pyrrhuloxia, Ariz.	0	0	0	0	0	10	0	0	10	28	0

	Banded- ier	Chaco Canyon	Head- quarters	Navajo	Pipe Spring	Tumaca- cori	Walnut Canyon	White Sands	Total 1938	Total '36, '37	Banded in U.S. in 1937
48.Quail, Gambel	0	0	70	0	0	18	0	0	88	161	171
49.*Quail, Scaled	0	9	0	0	0	0	0	0	9	0	0
50.Roadrunner	0	0	0	0	0	3	0	0	3	6	1
51.Robin, Western	0	0	0	0	0	0	9	0	9	20	6511
52.Sapsucker,Red-naped	0	0	0	0	0	0	1	0	1	10	59
53.Sapsucker,Rocky Mtn.	0	0	0	0	0	0	0	0	0	2	0
54.*Shrike, Northern	0	1	0	0	0	0	0	0	1	0	9
55.Shrike,White-rumped	0	0	8	0	2	0	0	0	10	12	106
56.Siskin, Pine	2	0	0	0	0	0	0	0	2	42	225
57.Solitaire, Townsend	0	0	0	0	0	0	5	0	5	62	6
*58.Sparrow,Ariz.Chippg	0	0	1	0	0	0	0	0	1	0	2727
*59.Sparrow, Brewer	0	0	0	0	0	1	0	0	1	0	0
*60.Sparrow,Desrt Bl-tht	0	1	1	0	0	0	0	0	2	0	0
61.Sparrow, Gambel	0	1	206	0	468	136	0	0	811	777	4917
62.Sparrow, Lincoln	0	0	0	0	0	1	0	0	1	14	2054
63.Sparrow,W.Chipping	0	0	0	0	0	0	0	0	0	9	2727
64.Sparrow, W. Lark	0	0	0	0	0	0	0	0	0	6	16
65.Sparrow,Nev.Savannah	0	0	0	0	0	0	0	0	0	1	903
66.Sparrow, Song	0	0	0	0	39	0	0	0	39	19	7307
67.Sparrow,W. Vesper	0	0	0	0	0	0	0	0	0	2	256
68.Sparrow,White-crnd	0	0	0	0	0	0	0	0	0	10	4917
69.Swallow,Rgh-winged	0	0	0	0	0	0	0	0	0	7	58
70.Tanager, Western	0	0	0	0	0	0	0	0	0	1	26
71.Thrasher, Bendire	0	0	3	0	0	0	0	0	3	16	8
72.Thrasher, Crissal	0	0	9	0	0	1	0	0	10	10	0
73.Thrasher, Palmer	0	0	0	0	0	8	0	0	8	7	0
74.Thrasher, Sage	0	0	0	0	0	0	0	0	0	2	0
75.Titmouse, Gray	0	0	0	0	0	0	0	0	1	1	17
76.Towhee, Canyon	4	6	0	0	0	13	0	0	23	35	179
77.Towhee, Green-taild	0	0	2	0	5	4	0	0	11	24	30
78.Spurred Towhee	0	0	0	0	3	0	0	0	3	3	64
79.Verdin	0	0	7	0	0	0	0	0	7	2	0
80.Warbler, Lucy	0	0	0	0	0	0	0	0	0	1	0
*81.Warbler, Pileolated	0	0	0	0	1	0	0	0	1	0	213
82.Waxwing, Cedar	0	0	0	0	0	0	0	0	0	1	3503
83.Woodpecker, Cactus	0	0	0	0	0	0	0	0	0	2	0
84.Woodpecker, Gila	0	0	3	0	0	0	0	0	3	13	1
*85.Woodpecker, Lewis	0	0	0	0	0	0	7	0	7	0	0
86.Woodpecker,White-brst	0	0	0	0	0	0	0	0	0	1	62
87.Woodpecker, Mearns	0	0	0	0	0	0	3	0	3	10	0
88.Wdpkr,Rocky Mtn.Hairy	0	0	0	0	0	0	0	0	0	1	62
89.Wren, Baird Bewick	0	0	0	0	0	0	0	0	0	3	82
90.Wren, Cactus	0	0	11	0	0	5	0	0	16	49	14
91.Wren, Canyon	0	0	0	0	0	0	0	0	0	22	1
92.Wren, House	0	0	0	0	0	0	0	0	0	1	2144
93.Wren, Rock	0	0	2	0	0	1	0	0	3	1	5
TOTAL	161	19	499	15	530	228	275	23	1749	2820	
*----New species to this listing.	GRAND TOTAL '36, '37, '38:4569										

RUMINATIONS

In which the Boss growls a little about the importance of areas.

A couple of technicians, who were probably two thirds asleep, made a peculiar report on one of our monuments last month and, although we protested it through proper channels at the time, we are still growling about it.

These men were checking a list of public works projects and came to an item of ours, providing a water supply at one of our monuments. They comment as follows: "The expenditure of \$50,000 to provide water for this monument appears to us to be debatable in view of the fact that water and sewer projects are so urgently needed in many other more important areas."

What do you suppose they mean? If one of our areas has more visitors than another, does that make it the more important area? Are you sure of that? Then, in that case, this monument which does not seem, in their minds, to be a very important area, is having just short of a hundred thousand visitors this year, for whom we are hauling potable water 18 miles. Name me two or three more important areas in the Park Service where you have that condition this year.

The engineers rather enthusiastically, as I recall it, pulled for a regular appropriation of \$350,000, or thereabouts, for a water supply for the thirty-odd thousand annual visitors at Mesa Verde National Park; but when we try to get one seventh of that for three times the number of visitors at a national monument, it is considered very debatable "in view of the fact that water and sewer projects are so urgently needed in many other much more important areas." More important areas must mean parks, because all the monuments where we have a hundred thousand annual visitors and no potable water can be named on the first finger of one hand, and that is the monument we are talking about.

There is just one test of the need of a water supply and that is the number of people who are to visit the place in question and the length of their stay. A hundred thousand visitors still remain a hundred thousand visitors, whether they visit a lowly monument or a princely park. The importance of the area, granting that you had some scale upon which it could be measured, has nothing to do with furnishing a water supply. Let it be the most or least important area in the whole system, but if a hundred thousand persons go there, then the Government is definitely obligated to furnish them water. Of course, if out of the public works money there is only \$50,000 for a water supply and we had three places where we had a hundred thousand visitors needing water, we might have to decide where to place the investment, but my understanding is that the Government has quite a lot of public works money to be expended and I believe I would just

RUMINATIONS (CONT)

put all three areas in, if you have that many, and stop talking about which is the most important one.

Quite often, when a man talks to us about "more important areas," we find he is talking about parks as distinguished from monuments, and this, naturally, gets us riled up. Whose scale will you use to determine the importance of one area as against another? Will you agree with the lady who, standing on one of those points at the Grand Canyon where one is so impressed by the Greatness of God, swept that view through her lorgnette and said: "And to think that in all this area there isn't a single glacier."?

If you can't even compare one park with another as the lady tried to do, why try to measure the finest prehistoric wall construction in the United States, which, we might modestly point out, is in the Chaco Canyon, in terms of the Great White Throne of Zion. You might just as well try to divide ten ducks into seven brass dog irons; it doesn't make sense and you are foolish to try.

This 'park worship', if we may call it that, has always interested me. I have, in my time in the Service, seen several parks get misplaced by being taken in and held for several years as monuments. The men in charge were in quite a dither about it and it was rather funny to see the great sigh of relief and smirk of satisfaction with which they settled down when they finally got transferred over into the park heaven. They woke up the next morning with the same area under their control, the same type of visitors coming to see it, the same personnel in charge of it, and the same old mistakes being made in handling it, but, Oh! the air was so much sweeter in the newly made park.

You understand that my sympathy was with them, for their area was never worthy of being classed as a monument and they were just getting their deserts when they were put over among the parks. The only thing was that it looked like a promotion to them whereas it was just straightening out a wrong classification to me. If putting a man's area in the right classification is sure to bring him pleasure, let us propose to some of these men who are operating monument areas which have been mis-classified as parks, that their areas be properly placed among the monuments.

I can tell you from experience that you had better propose that with a smile and be ready to dodge the brick.

I wonder why they feel that way? Of course it is all right with us if they do, only we don't want them talking about "much more important areas" for from the angle of bringing a family of twenty-six monuments through their growing pains, a park superintendent leads a drab and uneventful sort of life. I wouldn't want to be one.

Cordially

The Boss

SOUTHWESTERN MONUMENTS

MONTHLY

REPORT



SEPTEMBER - - - 1938

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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SOUTHWESTERN MONUMENTS PERSONNEL

HEADQUARTERS: National Park Service, Coolidge, Arizona.

Frank Pinkley, superintendent; Hugh M. Miller, ass't. superintendent; Parke W. Soule, chief clerk; Dale S. King, ass't. park naturalist; Charlie R. Steen, jr. park archeologist; Natt N. Dodge, jr. park naturalist; J.H. Tovrea, ass't. engineer; Charles D. Carter, jr. landscape architect; Luis A. Gastellum and Russell Landry, clerk stenographers; Ira C. Goodwin and Larry Mungerro, CCC clerks; F.E. Stonehocker, machinist; J.L.L. Baehr, utility man; Teddy Savage, CCC machinist helper; and Victor Scholz, CCC mimeograph operator.

FIELD STATIONS -- POST OFFICE -- PERSONNEL -- 1938 VISITORS -- ACRES AREA

1. <u>ARCHES</u> ; Moab, Utah; . . . Harry Reed, ranger.	4,520.00
2. <u>AZTEC RUINS</u> ; Aztec, New Mexico; T.C. Miller, custodian; J.W. Brewer, Jr., park ranger.	20,214 . . . 25.88
3. <u>BANDELIER</u> ; Santa Fe, N.Mex.; C.G. Harkins, custodian; J.M. Spuhler, temp. ranger; Geo. Sholly, grader operator; 3 CCC guides and helpers.	14,619 . . 26,026.20
4. <u>CANYON DE CHELLY</u> ; Chin Lee, Ariz.; Johnwill Faris, custodian.	1,573 . . 83,840.00
5. <u>CAPULIN MOUNTAIN</u> ; Capulin, N.M.; H. Farr, custodian.	30,200 . . . 680.37
6. <u>CASA GRANDE</u> ; Coolidge, Ariz.; A.T. Bicknell, custodian; Don Egermayer, ranger; J. Rogers, S. Coyle, and G. Sheffield, CCC guides.	33,761 . . . 472.50
7. <u>CHACO CANYON</u> ; Chaco Canyon, n. Mex.; Lewis T. McKinney, cust.; Homer Hastings, temp. ranger.	6,271 . . 21,512.37
8. <u>CHIRICAHUA</u> ; Douglas, Ariz.; Frank Fish, custodian; G.G. Philp, temp. ranger; H. Bennett, Wm. Stone, and H. Minton, CCC guides.	9,145 . . 10,694.80
9. <u>EL MORRO</u> ; Ramah, N. Mex.; R.R. Budlong, custodian.	3,208 . . . 240.00
10. <u>GILA CLIFF DWELLINGS</u> ; Cliff, N.Mex.; no custodian.	105 . . . 160.00
11. <u>GRAN QUIVIRA</u> ; Gran Quivira, N.M.; G. Boundey, custodian.	3,113 . . . 610.94
12. <u>HOVENWEEP</u> ; Cortez, Colo.; A. Peterson, temp. ranger.	168 . . . 285.80
13. <u>MONTEZUMA CASTLE</u> ; Camp Verde, Ariz.; E. Jackson, custodian; Edwin Alberts, park ranger.	10,645 . . . 520.00
14. <u>NATURAL BRIDGES</u> ; Blanding, Utah; Z. Johnson, custodian.	741 . . . 2,740.00
15. <u>NAVAJO</u> ; Tonolea, Ariz., John Wetherill, custodian; W.F.V. Leicht, park ranger.	411 . . . 360.00
16. <u>ORGAN PIPE CACTUS</u> ; Ajo, Ariz.; no custodian.	6,200 . . 330,670.00
17. <u>PIPE SPRING</u> ; Moccasin, Ariz.; L. Heaton, custodian.	2,245 . . . 40.00
18. <u>RAINBOW BRIDGE</u> ; Tonolea, Ariz.; no custodian.	222 . . . 160.00
19. <u>SAGUARO</u> ; Tucson, Arizona; no custodian.	20,422 . . 63,284.00
20. <u>SUNSET CRATER</u> ; Flagstaff, Ariz.; D. Jones, ranger.	6,922 . . . 3,040.00
21. <u>TONTO</u> ; Roosevelt, Ariz.; R. Richert, temp. ranger.	4,985 . . . 1,120.00
22. <u>TUMACACORI</u> ; Box 797 Nogales, Ariz.; L. Caywood, custodian; Ted Cronyn, park ranger.	15,289 . . . 10.00
23. <u>WALNUT CANYON</u> ; Flagstaff, Ariz.; P. Beaubien, jr. archeologist; C. Leffler, T. Maloney, S. Cataldo, and R. Beishline, CCC guides.	13,526 . . . 1,873.00
24. <u>WHITE SANDS</u> ; Alamogordo, N. Mex.; Tom Charles, custodian; Joe Shepperd, grader operator.	110,805 . . 142,987.00
25. <u>WUPATKI</u> ; Flagstaff, Ariz.; D. Jones, park ranger.	2,754 . . 35,865.00
25. <u>YUCCA HOUSE</u> ; Cortez, Colo., A. Peterson, ranger.	172 . . . 9.60
<u>TOTAL FOR 1938; . . 1,143.35 square miles</u>	
	319,164 . . 731,747.46

OPENING

By Superintendent Frank Pinkley
Southwestern Monuments,
Coolidge, Arizona.

September showed an expected decrease in the number of visitors, we having passed the crest of our visitor year in August. Of those visitors who came, too many went to the wrong monuments, where we do not yet have enough personnel, and could not get service. This situation is reflected in the fall of our percentage of contact to one of the lowest for the year. We needed seven more men in September than we could put on duty.

The Visitor Year, which closed with September 30, brought us 319,167 visitors as compared with 291,000 in the previous year. Again we fall in behind Grand Canyon with its 336,000 this year as against 298,000 last year.

For these visitors we provided just under 30,000 personally conducted field and museum trips, which, we estimate, will be between a third and a half of all the personally conducted trips which were given for the year by the whole Park Service. This is the best record we have made thus far and we think we may be justly proud of it.

Work is progressing well in the CCC camps at Bandelier, Chiricahua and Flagstaff and the work is also going well in the side camp at Casa Grande and the mobile unit at Chaco Canyon. Our trouble with these camps is that our allotments have been cut now to the point of slowing the efficiency of the camp when we have a building program going; the purchase of materials runs the camp too close to the wind, financially speaking. Further cuts of allotments will probably force us to quit using them and turn our camps in.

Financially we feel that we are in good shape for this time of the fiscal year and the outlook for the next few months is good.

In the matter of personnel, the morale seems to be good with only one or two exceptions and we are turning out good service. Unfortunately the boys have had to put in a lot of overtime, both in the office and on visitor contact duty. Visitor contacts will go down now at those monuments around the 6,000 foot level and above, but will begin to rise at those monuments in the southern part of the district where the winter tourist traffic is beginning to set in. In the office, with about 8,000 pieces of mail coming and going each month and more than 200 ledger accounts to be summarized under ten symbols, to say nothing of the four summaries to be made under CCC, we are trying hard to get the boys free of overtime. A new man goes on within a few days which will ease the pressure.

OPENING (CONT.)

We note with satisfaction that the extension to Walnut Canyon National Monument has gone through and thus one more of our boundary problems is solved. Thanks are due the local Forest Service officials and officials of Coconino County as well as The Museum of Northern Arizona, for aid in getting this extension.

As we are going to press, we get the word that we are to share in the Public Works money after all in the way of some badly needed construction. This means we can house our personnel at Wupatki, Navajo, El Morro, and Montezuma Castle. This is a mighty fine piece of news and makes us feel that we are many steps along the way toward better living conditions and administration in the Southwestern Monuments. Also this news has it that we are going to have some Public Works help at Walnut Canyon where we thought we were completely stymied on a water supply and some other construction.

With the completion of preliminary plans for museum installations at White Sands and their approval by this office and that of the Western Museum Laboratories at Berkeley, the ball has started rolling toward the establishment of another first class information-dispensing center. With Tom Charles' 110,805 visitors this past travel year and prospects of an increase for the year to come, informational service is badly needed at that monument and we hope that nothing happens to slow down the project now that it is underway. If the plans meet the approval of the Washington office, Dorr Yeager and his highly efficient force of technicians and artists have expressed an eagerness to start putting them into more concrete form.

At Tumacacori and Bandelier, the museums are by no means finished but sufficient exhibits are in place at both to be of great assistance in putting across the stories of those areas to the visitors. During September, Cy. installed the glass fronts to his cases thereby protecting the exhibits which had previously been installed, and Louis took enough visitors through his display rooms to convince him that the museum meets with enthusiastic approval. No museum is ever completed, and the one at Tumacacori is getting to the stage where the boys are beginning to figure ways for improving it.

Another product of the month which gives us considerable satisfaction is the plan for the Tumacacori Mission Garden which is reproduced on pages 258-59 of this month's Supplement. Although there's many a slip twixt the plan and the garden, we have been working on the idea for so long that any black-and-white evicence of progress is cause for rejoicing.

Cordially,

Frank Pinkley
Frank Pinkley

Superintendent.

CONDENSED REPORT

IN WHICH HIGHLIGHTS OF THE MONTH ARE GIVEN



Coolidge, Arizona,
October 1, 1938.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

The Condensed Report for the month of September, 1938, follows:

	<u>Sept.</u> <u>1938</u>	<u>Sept.</u> <u>1937</u>	<u>Sept.</u> <u>1936</u>	<u>To last</u> <u>of Aug.</u>	<u>Travel Year</u> <u>Complete</u>
<u>TRAVEL:</u>					
<u>Station</u>					
Arches.	200	---	---	1,248	1,448
Aztec Ruins	2,752	1,086	1,972	17,462	20,214
Bandelier	1,810	2,203	1,968	12,809	14,619
Canyon de Chelly.	268	274	217	1,305	1,573
Capulin Mountain.	6,500	5,000	4,500	23,700	30,200
Casa Grande	1,889	1,837	2,045	31,872	33,761
Chaco Canyon.	875	1,149	1,041	5,396	6,271
Chiricahua.	576	1,076	709	8,569	9,145
El Morro.	442	425	423	2,766	3,208
Gila Cliff.	10	---	---	95	105
Gran Quivira.	172	450	503	2,941	3,113
Hovenweep	8	---	---	160	168
Montezuma Castle.	1,155	1,239	1,234	9,490	10,645
Natural Bridges	122	140	89	619	741
Navajo.	59	64	46	352	411
Organ Pipe.	350	---	---	5,850	6,200
Pipe Spring	303	235	518	1,942	2,245
Rainbow Bridge.	20	---	---	202	222
Saguaro	350	---	---	20,072	20,422
Sunset Crater	823	608	608	6,099	6,922
Tonto	240	277	338	4,745	4,985
Tumacacori.	992	1,025	1,093	14,297	15,289
Walnut Canyon	1,913	1,465	1,672	11,613	13,526
White Sands	14,446	9,164	14,005	96,359	110,805
Wupatki	553	346	329	2,201	2,754
Yucca House.	10	---	---	162	172
TOTALS	36,838	28,806	33,507	282,326	319,164
Total for Travel Year, 1937.					291,426
Increase					27,738

CONDENSED REPORT (CONT.)

With the closing of the travel records on September 30, Southwestern Monuments showed an increase of 27,738 visitors, or approximately 9½ per cent, over the previous year. An analysis of these records is given under the heading "Annual Visitor Record by Stations" in the Headquarters Section of this report. Discussion of the September travel may be found on page 146 of this report.

000 GENERAL

010 Matters of Unusual Importance or Interest

Havasupai: The ranger's food cache was raided by an animal whose tracks were identified as those of a lobo wolf (See p. 195).

Aztec, Chaco, de Chelly: Personnel from these stations manned a Park Service Information Booth at the Gallup Ceremonial (pg. 200).

Capulin Mountain: An extensive grasshopper flight was seen (pg. 243).

Tumacacori: Plans for the mission garden have been drawn (pg. 257).

Walnut Canyon: An addition of 913 acres was proclaimed (pg. 212).

White Sands: The Custodian and his wife put on a very fine display at the local fair (see p. 213).

Yucca House: Fresh vandalism and the defacement of signs were reported by the ranger (see p. 196).

Wupatki: A survey for the development area was made and the route for a new entrance road selected (see p. 221). A burial was discovered and reported to the Museum of Northern Arizona (pg. 222).

020 Weather

"And the tang of fall is in the air", is a statement included in the reports from several stations. Rain, especially during the early part of the month, was general over the northern stations, with fair, cool weather during the latter portion. Pipe Spring was hot and dry, as were the majority of the southern areas except Chiricahua which reports considerable rain.

100 ADMINISTRATIVE

123 Inspections by Park Service Officials

Aztec Ruins: A. Underhill, H. Montgomery, A. R. Kelly, D. King, G. Vivian, J. Diehl, H. Miller, J. Faris, C. Richey, L. McKinney, Mitchell from Mesa Verde.

Arches: H. M. Miller, Chuck Richey.

Bandelier: H. Cornell, E. Reed, J. Hamilton, A. Underhill, C. N. Gould, H. Hawkins, M. J. McCole, Iva Petty, J. Eglington, Reta McCoy, Chuck Richey, W. W. Yeager.

Capulin: W. W. Yeager.

Casa Grande: J. Haile.

Chiricahua: Charles Gable, from Washington.

Chaco Canyon: H. Miller, C. Richey, D. King, A. Kelly, H. Montgomery, T. C. Miller, G. Sholly, T. Onstott, J. Spuhler.

El Morro: W. B. McDougall, C. N. Gould, Jack Diehl.

Headquarters: W. B. McDougall, A. R. Kelly, T. Cronyn, T. Onstott, G. Philp, R. Richert, and A. Peterson.

Montezuma Castle: Dale S. King and A. Kelly.

CONDENSED REPORT (CONT.)

Natural Bridges: Jack Diehl.

Navajo: M. R. Tillotson.

Pipe Spring: Hugh Miller.

Tonto: Hugh Miller.

Tumacacori: Gertrude Hill, F. Pinkley, C. Steen, N. Dodge.

Walnut Canyon: J. Tovrea, J. Diehl, D. King, A. Kelly, T. Onstott, L. Gastellum, H. Miller, J. Haile, A. Kuehl, M. Wetherill, Drs. Gould and McDougall.

White Sands: H. Hawkins, C. Gould, C. Steen, J. Faris.

Wupatki: D. King, A. Kelly, J. Diehl, A. Kuehl, J. Tovrea, C. N. Gould, W. B. McDougall, W. Leicht, M. Wetherill, Stagner, Benson, and Mrs. Smith from Petrified Forest.

140 Labor Conditions

Capulin Mountain: Many farmers, unable to make a living, are working on W.P.A. projects (see p. 224).

150 New Equipment:

Headquarters: Hacksaw frame, battery tester, battery hydrometer, 14 fire extinguishers, 1½ ton stake truck, and 3/4 ton pickup to be assigned to Tonto (see p. 239).

180 Circulars, Placards, and Publicity

Arches: The Federal Writers' Project has requested detailed information regarding Utah monuments (see p. 238).

200 MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTION

210 Maintenance, Unusual

Aztec: Extensive repairs to a sidewalk were necessary as the result of tree root uplift. Spraying was required to prevent serious insect damage to plantings around the buildings (see p. 201).

220 Improvements

Chiricahua: Boundary survey was completed, 900 sq. yds. of banks sloped, and ¼ mile of highway surfaced by CCC (see p. 211).

Navajo: Entrance road in good shape for the first time (p. 193).

Walnut Canyon: Trail work progressed, new entrance route located and staked, stone quarry operating and logs cut for construction.

Sunset Crater: A new register box was installed (see p. 223).

Bandelier: Surfacing of the entrance road is 50 per cent done.

Natural Bridges: Work on trails progressed well (see p. 229).

El Morro: Work started on residence addition (see p. 230).

231 CCC Construction

Bandelier: Lobby and Sales Room project complete except heating, Operator's Residence completed to painting and staining, Cabin "A" ready for plaster, Cabin "B" ready for plumbing, Comfort Station started, furniture being made (see p. 227).

Casa Grande: Warehouse floors finished, wiring 40 per cent done, plumbing installed; oil house, floors poured, inside plastered, wiring installed, gas tank, pump, air, and water installed and washrack roof completed; education and recreation room construction started. Water line to the new area completed (see p. 206).

Chiricahua: Warehouse floor poured, partitions under construction. Work continuing on doors, etc., for Casa Grande (see p. 211).

Walnut Canyon: Work on the residence has started (see p. 212).

300 ACTIVITIES OF OTHER AGENCIES IN THE MONUMENTS

320 Cooperating Agencies

Headquarters: Dr. A. C. Whitford of Alfred, New York, is analyzing prehistoric fabric from Montezuma Castle (see p. 242). The University of Arizona has requested plant specimens and will identify any sent in (see p. 242). The Western Museum Laboratories made plant markers for the U. S. Indian Service (see p. 242).

Wupatki and Walnut Canyon: The Museum of Northern Arizona has continued its assistance in several lines.

350 Donations and accessions:

Headquarters: The library acquired 24 books, 48 periodicals, and 18 pamphlets. A Kodaslide projector, movie film, shotgun shells, and casting compound were added to the inventory (see p. 242-3).

Walnut Canyon: A bulletin of weather records and 27 specimens of Hopi beans, corn, and sunflower seed were acquired (see p. 212).

Wupatki: Six rodent study skins were made up (see p. 223).

400 FLORA, FAUNA, AND NATURAL PHENOMENA

410 Ranger, Naturalist, and Guide Service

All Stations: Detailed reports of public contact services appear in the pages following 246 of this report.

El Morro: Newly established illustrated talks are being well received. The library is heavily patronized (see p. 231-233).

Navajo: Spectacular waterfalls followed heavy rains (see p. 193).

420 Museum Service

Bandelier: Work on the geology cases is progressing. Service was interrupted while case fronts were being installed (see p. 226).

Tumacacori: Although still unfinished, the museum has been open to many visitors and has received much praise (see p. 215).

460 Birds

Chaco Canyon: Bird banding records appear on page 248.

Chiricahua: The observation report is on page 250.

El Morro: Quail released last spring have increased (see p. 231).

Montezuma Castle: Betty Jackson's report is on page 254.

470 Animals

Casa Grande: Snakes have been seen eating bats (see p. 205).

Canyon de Chelly: Bears have been reported killing Navajo stock. (see page 219).

Navajo: Tracks of a lobo wolf were seen (see p. 195).

Tumacacori: Custodian "Gets" neighbor's goat (see p. 255).

480 Miscellaneous

Chaco Canyon: Wild flowers were very numerous (see p. 235). Additions to the monument's plant check list appear on page 249.

Chiricahua: A species of oak, previously unrecorded from the monument is reported on page 249. Owners of lands adjoining the monument on the south and west have requested the establishment of a game refuge (see p. 210).

Wupatki: 150 plant specimens collected for identification.

CONDENSED REPORT (CONT.)

500 USE OF MONUMENT FACILITIES BY THE PUBLIC

510 Increase or Decrease in Travel

All Stations: Although increases were reported from some stations, and decreases from others, the records for September show an increase in travel over the area as a whole (see p. 246).

530 Newsworthy Visitors:

Aztec Ruins: Dr. H. Colton, Katherine Bartlett, E. Haury, P. Reiter, John and Dorothy Faur.

Bandelier: R. Thommyre, Paris; and S. H. Harmsworth, London.

Montezuma Castle: Harlean James, Dr. Mathaway, C. L. Hubbs.

Tonto: Miss Harlean James.

Pipe Springs: Geologist B. Stringham, Univ. of Utah.

White Sands: Miss Harlean James and Drs. Ohmsted and Hill.

600 PROTECTION

610 Police

Navajo: Due to falling rocks, it has been necessary to keep visitors out of Betatakin (see p. 194).

Pipe Spring: Cooperation of the Camp Commander has been of value in preventing vandalism (see p. 208).

620 Fire.

Bandelier: Lookouts have been laid off and the lookout station dismantled for the season (see p. 228).

630 Accidents:

Canyon de Chelly: One visitor's car was lost in the sands of the Canyon. It was covered by insurance (see p. 219). The Custodian escaped without injury in an accident caused by a tire blowout (see p. 220).

650 Signs:

Chiricahua: The new boundary created by the addition to the monument has been posted as a warning to hunters.

El Morro: Several new directional signs have been posted (p. 231).

Hoverweep: Additional signs have been placed as a warning to vandals (see p. 196).

Tonto: New directional markers have been placed at main highway junctions some distance from the monument (see p. 198).

640 Destruction of Predatory Animals

El Morro: Two house cats were killed this month (see p. 231).

700 ARCHEOLOGY, HISTORY, AND PREHISTORY

710 Ruins Stabilization

Aztec Ruins: Work is progressing well with waterproofing, drainage, and wall capping the major projects. Four of the 10 rooms included in the project were completed (see p. 200).

Mobile Unit: Work has progressed well and 356 man days have been used. (See pgs. 235-6).

Chaco Canyon: The Navajo name of "Threatening Rock" is discussed on page 270 by Neil M. Judd. University of New Mexico activities on the monument ended for the season (see p. 235).

CONDENSED REPORT (CONT.)

Casa Grande: Interest was expressed by a finger-print expert in finger marks found in the ruins (see p. 204). Repair of broken pottery has been of value in preserving it (see p. 242).

Hovenweep: Beams were collected for dating, and sherds for a study of the ceramics of the area (see p. 196-7).

900 MISCELLANEOUS

Chaco Canyon: Navajo medicine customs have interfered with the work of the Mobile Unit (see p. 236).

Chiricahua: Considerable work has been done on approach roads to the monument (see p. 210).

Hovenweep: Heavy rains rendered the roads impassable (p. 196).

Montezuma Castle: Razing of a dilapidated building on adjoining land has removed an eye-sore of long standing (see p. 218).

Cordially,

Frank Pinkley

Frank Pinkley,
Superintendent.

FIELD REPORTS

FROM THE MEN ON THE JOB



NAVAJO

By William F. V. Leicht, park
ranger, Tonalea, Arizona.

Visitors this month, 59 ; travel year 1938, 411.

A graph plotted for the month's travel would look like a string of serrated peaks dwindling in size to foothills and a monotonous plain. Of the total 59 visitors, 47 came to Betata'kin during the first two weeks, six the third week, and six more during the last week of the month. Two of these visitors had been at Inscription House; none went to Keet Seel.

A Park Service visitor was Superintendent M. R. Tillotson of Grand Canyon. Two other visitors of prominence were Ansell B. Hall of Mesa Verde and Fred Black of the Edison Institute, Dearborn, Michigan.

Similar to a graph of the travel would be a profile of the weather for the month. During the first two weeks there were frequent showers and rains and one severe cloudburst. The remainder of the month was mostly clear, with the tang of autumn and early fall in the air.

The cloudburst in Betata'kin Canyon deserves special mention. It began at 1:30 in the afternoon with a clattering of hail that whitened the canyon to a wintry landscape. A deluge of rain followed and then there was quiet. Suddenly there came such a deafening roar as to cause me to repent of my sins. It was like the bursting of a great dam. I rushed from my tent with the avowed intention of climbing the nearest tall tree. What I saw when I got outside was several Yosemitees rolled into one. There were six waterfalls plunging hundreds of feet from the top of the towering cliffs. Two were spilling over the great arch at the ruins. The little stream below the tent, practically dry a few minutes before, became a raging torrent.

The entire road between Shonto and the head of Betata'kin trail can, at this writing, be driven with comparative ease and safety.

NAVAJO (CONT.)

The CCC group of Indians is now at work on the road that leads from the Betata'kin road to Marsh Pass and Kayenta. Neither road achieves the smoothness of a pool table, but the visiting tourist can be reasonably certain he can get over both without his hair standing on end and without damage being done to his car.

There is still great danger from falling rocks in the vicinity of Betata'kin ruin. Slabs of rock on the underside of the arch high above the spring are gradually loosening and may fall at any time. I can keep visitors away from the danger zone when I am at Betata'kin, but on two occasions when it was necessary for me to be absent from the monument they disregarded the warning signs.

My two ravens disappeared for two weeks and I saw neither hide nor feather of them during that time. At first I thought they had been frightened by the falling rocks from their penthouse in the great cave, but my second thought is that they flew north to visit Zeke Johnson's six crows. The lovable rascals returned to Betata'kin noisier and sassier than ever.

In last month's report I mentioned the enchanting view that is to be had of Betata'kin from the rim of the canyon directly opposite the ruins. If I could make but one lasting contribution to this monument, it would be that through my recommendation our visitors may know and enjoy the magic that is in that view of Betata'kin. It is a never-to-be-forgotten experience.

There is a clutch at the heart as I leave Navajo National Monument for my new post at Boulder Dam, but a constitutional preference compels me to exchange the enchantment of the past for the pulsing present. It has been pleasant, Boss, and I wish you and Southwestern Monuments continued success.

*****SWM*****

It has been nice to have you with us, Bill, on your probationary period, and we can say without hesitation that you have made good and we do not hesitate to send you over to Guy with our hearty endorsement. Bob, Don, and you might get together over there and form a Southwestern Monuments club and boost a few of those visitors over this way. Tell Guy that we are just bound to get his outfit off to a good start and if three of you can't swing it, for him to let us know. Good luck to you, Bill, and may you have lots of visitors, all good ones.--F.P.

*****SWM*****

NAVAJO (CONT.)

An owl breaks the stillness of the night with the interrogation, "Hoo, hoo, hoo cooks for you?" To which my reply is muttered, "Nobody, buddy, nobody!"

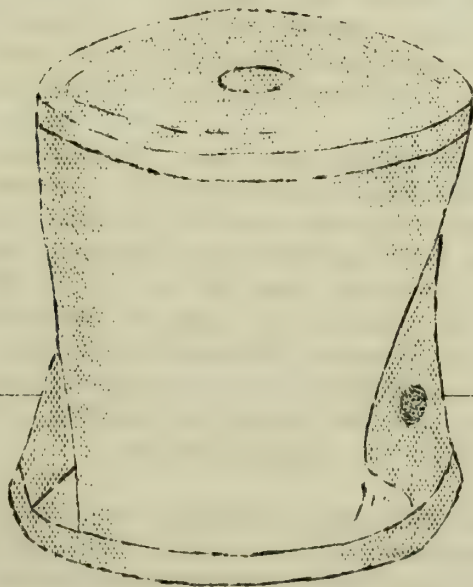
On the night of August 22, my water-cooler at the stream below the tent was raided. The box in which I kept my butter and can of condensed milk was all broken up. The top of one of the butter jars was off and the butter gone. Another jar of butter, still unopened, lay about ten feet away on the bank. The condensed milk can was crushed at the top and a hole made by a tooth put into the side. All around the place in the mud and moist sand (the stream has dried up again) were the foot and claw prints of a large animal.

The discovery was made about noon when I went down to the cooler after some butter. With a party of visitors from Grand Canyon, I was about to have a picnic lunch. A Navajo, his wife, and two children were sitting nearby. I called Harry Barick to look at the tracks. He told me what he believed they were, then called the Navajo to confirm his belief. They agreed that the tracks were made by a large lobo wolf!

Because it is an interesting exhibit, I am sending in to headquarters the condensed milk can that is crushed at the top by the jaws and punctured at the side by the tooth of the wolf.

Adios,

Bill



HOVENWEEP

By Alfred Peterson, park ranger,
Cortez, Colorado.

Visitors this month, 8; travel year, 1938, 168.

I am planning on leaving Hovenweep today for Cortez, straighten up a few items there, and then go on to Gallup, if time permits, on my way back to headquarters to terminate my season as Roving Ranger; on the whole a most satisfactory season.

So far as I know, Hovenweep has had only eight visitors so far this month. Four came while I was away on duty at Aztec, two from California came in from the west which is most unusual, and two, apparently Division of Grazing men or stockmen, came in during my last inspection of Yucca House. They came from Ackmen way and returned the same way. Nobody has been in to the Hackberry, Horse-shoe, and Holly groups.

There has been considerable rain at various times, and this has made the roads practically impassable for short periods and leaves them in bad condition for longer periods. On September 5 I attempted to go to Yucca House, but the road was impassable a short distance from the pavement. Even walking through that mud was out of the question. On the 9th I made a thorough patrol of Yucca House and found some fresh vandalism in the form of holes dug by pot-hunters who had come in over the back fence and mutilated a "warning" sign as previously reported. I refilled most of the holes and mounted a "warning" sign right where the largest one was. On the 16th another patrol of Yucca House was frustrated by a veritable sea of mud. On the 17th the old car struggled through lots of mud and Yucca House was found to be in the same condition as on the last visit.

Five new "warning" signs were made and mounted on trees during the month, and one old sign board near Twin Towers of the Square Tower Group was resurrected and reset in a pile of rocks, and a new cloth sign put on it. Of the new signs one was located at Hackberry group, one at the Holly group, one at the Cajon Group, and two at the Square Tower Group. The mutilated sign at Yucca House was renewed. I hope these signs help prevent further vandalism. It makes one boil with righteous indignation to go around and see the piles of debris that has been shoveled out of a doorway, or hole broken through the wall of a ruin, into the canyon below.

Sherds have been collected from the various groups, including Cajon. The Cajon collection is not very good and probably not representative. The ones from Hackberry and Holly are a little better but not all that is desired. Two separate collections were taken from the Square Tower Group--one from the vicinity of the head of the

HOVENWEEP (CONT.)

South fork and one from the vicinity of the confluence of the South and north forks of Ruin Canyon. This last one is by far the best and most representative collection.

Pieces of old beams, apparently, were found in the debris of fallen walls on the slope below Unit Type House, and nother piece was found below the round tower at the confluence of the two forks. These are Juniper and, though not very good for dating, I hope to do some work on them later.

It is my opinion that one of the reasons there appears to be so little trash dumped in the vicinity of these ruins in ancient times is that the trash was naturally thrown from the houses into the canyons just below, and later, when the buildings fell the debris covered the trash to a great extent. Then, too, trash on the slope washes into the gully below and then is lost.

I inspected another small ruin site. This one is on the high ground just south of Twin Towers, and practically all the buildings of the Square Tower Group could have been sighted from this site in its heyday.

*****SWM*****

Alfred has arrived at headquarters since this was writton and turned in his car and checked in his equipment. It seems to have been a pretty satisfactory summer on the Roving Ranger job. We will now keep an eye on Hovenweep and Yucca House from Aztec through the winter, going over there about once or twice a month for a check-up.--F.P.

*****SWM*****

TONTO

By Roland Richert, park ranger,
Roosevelt, Arizona.

Visitors this month, 240; travel year, 1938, 4,985.

Travel for the month has been rather slow, showing a slight decrease over September, 1937. Two hundred forty people in 76 automobiles visited the monument. This is a decrease of 37 or 13 percent.

Weather during the month remained warm. Little moisture has fallen and range conditions in this vicinity and in the monument are below normal. Roosevelt Lake contains only four percent of its total water capacity, which means that a tremendous run-off is necessary

TONTO (CONT.)

this winter and next spring in order to restore the normal water level.

A table of weather statistics taken at the bureau in Roosevelt follows: (all statistics in this report are for the period extending from August 25 to September 22, inclusive.)

Max. temp.....104°	Days cloudy.....0
Min. temp.....64°	Days clear.....22
Total precip.....1.32 inches	Days partly cloudy...7

ADMINISTRATIVE:

Considerable time has been devoted to office work which consisted of making out replies to the CSM questionnaires, straightening our files, and compiling regular reports. The balance of the time was taken up with guiding visitors in the ruins and museum, and general maintenance of headquarters.

On September 5 Mr. and Mrs. Hugh Miller of headquarters, and Miss Harlean James, Secretary of the American Planning and Civic Association, Washington, D. C., visited us. Hugh, Miss James and I made a trip to the Lower Ruins, and we'll add right here that Miss James is the best hiker representing the fairer sex that we have thus far encountered.

No visitors have been conducted to the Upper Ruins this summer, but we have made inspections from time to time just to see that everything was satisfactory.

MAINTENANCE, IMPROVEMENTS AND NEW SIGNS:

The perennial water leak in the hydrant under the cottonwood tree on the parking area has been remedied. A washer was fashioned and installed and has apparently turned the trick.

The wire guards protecting the fireplaces in some of the rooms in Ruins #1 have been straightened and placed more securely.

On the trip to headquarters, we erected two new monument markers at Apache Junction. Two corresponding enamel signs are to be placed at the Miami-Globe Junction at the opposite end of the Trail as soon as the new road under construction at that point is completed. Posts were kindly donated by the Highway Department.

USE OF THE MONUMENT FACILITIES BY THE PUBLIC:

Our travel has been slow, probably because this represents "the in-between season". Visitors registered from 18 states, the District

TONTO (CONT.)

of Columbia, and England. Quite a number of parties utilized the parking area for picnic dinners, and one group camped overnight.

TRAVEL STATISTICS:

For the month 240
Previously reported....4745
Total to date for travel year....4,985

MISCELLANEOUS:

It is with regret that we end our duties at Tonto with this month's report. Every phase of the work has been most thoroughly enjoyed, and we sincerely hope that at least some of the results are fruitful. We also hope to return soon to that best part of the National Park Service--the Southwestern Monuments,

*****SWM*****

We, too, are sorry that you have come to the end of your season, Roland, and we hope you have a good school year and are ready to go back with us next season. We understand that the A-1 course at the University of Arizona has been stiffened up to the point where it has squeezed out the soft ones and the other courses are correspondingly harder. Stay with them, Roland; they may give you a ride but you will be a better man for it, and a better man for us when you get through.--F.P.

*****SWM*****

AZTEC RUINS

By T. C. Miller, custodian,
Aztec, New Mexico.

Visitors this month, 2,752; travel year 1938, 20,214.

GENERAL:

Again Aztec Ruins reached an all time high record travel with both quantity and quality of visitors. Although heavy rains have caused considerable damage on all main highways leading to and from the monument, our travel has held up exceptionally well.

One official trip was made to Gallup on the evening of August 25

AZTEC (CONT.)

where I relieved Custodians Faris and McKinney who had been on duty at the Indian Ceremonial giving information to visitors on the 24th and 25th. Ranger Hastings and I were on duty from 8:30 A.M. on the 26th to 1:00 A.M. on the 27th when the exhibit hall closed. If travel records swell after that, "we done it."

Another official trip was made to Chaco Canyon on September 4 in regard to the Ruins Stabilization Project. In all, this monument has had a very busy and successful month.

WEATHER:

Max. temp.94	Partly Cloudy Days.11
Min. temp.44	Cloudy Days12
		Clear Days.8

Precipitation was recorded on 13 days with a total of 3.16 inches. On the 15th, .57 of an inch was recorded in a 35 minute downpour.

RUINS STABILIZATION:

This project has proceeded in a satisfactory manner and we have accomplished and finished up more jobs this month than since the starting of the project. Rooms No. 1, 6, and 7 have been waterproofed, walls capped around the individual rooms with the original ceilings, and drainage provided. At the time of this report, we are working on Rooms No. 3, 5 and 8 with a five man crew. Agapita Atencio, the champion rock mason of the Chaco region, arrived at noon September 6, and we are really getting things done. No walls other than those that surround the original roofs have been capped or drained. However, much of this work is badly needed but has never been approved. It is hoped that when the roofing job is completed that we can keep this small crew until we get all the walls capped and the court drained.

NATIONAL PARK SERVICE VISITORS:

A. E. Underhill, road oiling expert, and Assistant District Engineer H. A. Montgomery, Dr. A. R. Kelly and Dale King were visitors here on August 30. They inspected the ruins and went over a few of our archeological problems.

Gordon Vivian, archeological foreman at Chaco Canyon, was here on business September 1. District Engineer John H. Diehl and Mrs. Diehl were here September 7.

Assistant Superintendent Hugh Miller and Chris, Chuck Richey, Johnwill Faris, and Lewis McKinney were here on Sept. 11. Temporary Ranger Mitchell and family of Mesa Verde National Park were here on September 5.

AZTEC' (CONT.)

NEWSWORTHY VISITORS:

Dr. Colton and Miss Katherine Bartlett, Museum of Northern Arizona, were here August 29. Emil Haury, University of Arizona, Mr. and Mrs. Paul Reiter, and Mr. and Mrs. William W. Hill of the University of New Mexico were monument visitors on August 29.

Mr. and Mrs. Joseph A. Burscy, director State Tourists Bureau, Santa Fe, New Mexico, paid us a visit September 2. John and Dorothy Keur, Southwestern Monument F.C.V's., were monument visitors on the second.

MAINTENANCE, NEW CONSTRUCTION, AND IMPROVEMENTS:

The east wall of the men's comfort station was overhauled and the roof repaired. It will be repainted at an early date. It was necessary to do considerable work on the museum roof, the roof on the custodian's residence, and the government garage during the month. Due to heavy rains, the wooden canals on the roofs in some places were completely rotted out. It was necessary to replace these canals and line them with galvanized iron in order to protect the buildings. Much has been accomplished on weed eradication during the month. The visitor trail leading from the Administration Building to the ruins had to be repaired during the month. The walk was damaged by a root from one of the cottonwood trees. The root had grown under the walk raising the pavement to such an extent that, in order to remove the root, a section of the trail had to be broken out and then the trail was patched with Bitudobe. The first attempt was unsuccessful as we used too much adobe and not enough sand. However, the second coat of Bitudobe was very successful and the job blends with the rest of the trail satisfactorily.

FLORA, FAUNA, AND NATURAL PHENOMENA:

Insect attacks upon plant life caused us to have to spray some of the shrubs in front of the Administration Building. Soap, kerosene, and water was used to rid the plants of insects. An over abundance of grasshoppers is noted. Some of the visitors have been entertained by praying mantes which are plentiful since the heavy rains. Rabbit brush is in full bloom and adds to the beauty of the grounds. Many questions are being asked about the luxuriant vegetation.

Atriplex in abundant seed is present all over the monument. The fruit growers in the Animas Valley have the largest crop of fruit this year that they have had in several years.

TRAVEL:

In spite of rainy or threatening weather, 2,752 people visited

AZTEC (CONT.)

the Aztec Ruins in 744 automobiles. All states were represented except Delaware, Maine, New Hampshire, North Carolina, North Dakota, South Dakota, Washington, D. C., and the territory of Alaska. Foreign Countries represented were: Canada, Germany, Holland, China, Colombia, Belgium, Peru, and Poland.

Of the 2,752 people who visited the monument, 2,569 were guided through the ruins and 2,347 were guided through the museum.

The travel figures this year compare favorably with those of 1937. This time there were 273 trips made in the field and the same number made in the museum, making a total of 546 trips in all. One hundred eighty three people were not contacted in the field and 405 missed the museum. These people either used the parking area for a turn-around, or used other facilities of the monument.

Total travel since October 1 is 19,620. For the corresponding period of last year ending September 30 was 14,411; an increase of 5,209 people. This included the travel for the month beginning August 23, and ending September 22. Travel from September 23 to September 30 inclusive will be submitted to your office by wire or telephone on September 30.

*****SWM*****

CASA GRANDE

By A. T. Bicknell, custodian,
Coolidge, Arizona.

Visitors this month, 1,889; travel year 1938, 33,761.

WEATHER:

Days clear.	16	Max. temp.	107°
Days partly cloudy	11	Min. temp.	60°
Days cloudy	4	Mean max. temp	103°
Precipitation	34	Mean min. temp	69°

The striking fact concerning the weather here at Coolidge this month is the remarkable similarity to that of September, 1937. The mean maximum temperature was .4 degree higher than last year, while the average minimum shows 3.3 degrees cooler. The rainfall this month has been much less, however, than that which fell during September of last year; in fact, the total precipitation during the last four months is barely more than half the amount which fell during June, July, August, and September of last year. What this means to the valley

CASA GRANDE (CONT.)

generally, it is difficult to estimate, but it undoubtedly will affect the farmers of this vicinity to some degree.

During the early part of the month there were several days when dust storms occurred just at Sundown; one severe dust storm came up during the afternoon of the 10th, while another of more than average duration blew up during the morning of the 20th. Some of these were accompanied or followed by rains, although none of these amounted to more than a trace of moisture on the ground. Altogether, precipitation occurred on eight days during the month, but on only two days did the fall measure more than .01 inch. The heaviest fall was on September 3 when .30 inch of rain fell during the morning. Prevailing winds were from the west.

GENERAL:

Visitor travel is beginning to show the expected autumn increase over that of the past month. Also, the average time spent by each party is up a bit over that of August, which agrees with the Boss' observation of the up-and-down time average which has been occurring here for the past few months, and which the staff, as yet, been able to satisfactorily explain.

Mrs. Bicknell and a party of friends drove over from Long Beach to spend the Labor Day week-end with Custodian Bicknell.

We notice that the Boss, in his personal section, made mention of the fact that, although he did not know which, either one or both of the Egermayers had gone to a wedding in Los Angeles. For his information, it was both; as usual, the H.R.W.P. had the last word.

Custodian Bicknell has been at headquarters most of the month, except for one trip to Mt. Elden to transport CCC equipment; and three trips to Phoenix, two of which were for the purpose of taking boys from the camp here to the doctor at SP-3-A.

OFFICIAL VISITORS:

Park Service people who visited the monument during the month were: Mrs. Finley, Mrs. Haile, and Mrs. Carter; Jack Haile was a headquarters visitor on the same date. Miss Harlean James, Executive Secretary for the American Civic and Planning Association, was taken through the ruins and museum by Mr. Pinkley, after which she left on a tour of the other Southwestern Monuments.

NEWSWORTHY PEOPLE:

Don Stevenson, his wife and two children were monument visitors. Mr. Stevenson has been a packer for the Park Saddle Company at Glacier

CASA GRANDE (CONT.)

National Park for the past three years.

Mr. G. K. Greening, chief of the U. S. Weather Bureau office in Phoenix, paid us a visit. After going through the ruins and museum, he checked our weather station here and promised to send down enough white paint to repaint the equipment.

Professor and Mrs. C. E. Olmstead visited here. Dr. Olmstead is assistant professor of botany at the University of Chicago. They were returning home after a summer spent mainly in the national parks of the West.

On the same day, Mr. and Mrs. G. E. Barrett of Jackson, Wyoming, arrived for the express purpose of photographing the Casa Grande. Mr. Barrett, a retired navy man, has photographed scenery and wild-life in most of the national parks and other scenic areas of the West, using a panoramic camera which makes for unusual pictorial effects, especially after the prints are enlarged and tinted by Mrs. Barrett. One print in particular attracted the interest of several of the staff here at headquarters; a print of a herd of elk, taken in Jackson Hole, which measured two feet in height and over 20 feet in length. Another remarkable picture was that of a group of sahuaro cacti taken near Tucson, which clearly shows the advantage of this type of photography in that the perspective seems to be much better, and the detail at the outer extremes of the picture are much clearer and lifelike.

Detective Sergeant W. E. Lynch, of the San Diego Police force, evidenced considerable interest in the finger marks in the ruins and asked if any were ever found showing the pattern of the ridges. So we showed him the lump of clay, that had been found on the trash mound near the utility area, which contains the print of a thumb quite clearly. Sergeant Lynch stated that the arching of the ridges indicated a person descended from several generations at least, of manual workers, and corresponding more to the negroid or Asiatic type than to the type of modern white person. He also thought that the pattern tended to indicate a matured individual, although, from the size, an extremely small adult rather than a girl. As Mr. Lynch's profession has to do with fingerprints, his observations are more than welcome, the more so as he mentioned that practically no material for the study of prehistoric fingerprint patterns had ever been found on this continent, though quite common in the remnants of the ancient Egyptian civilizations.

USE OF MONUMENT FACILITIES BY THE PUBLIC:

Total travel: 1938--1,889; 1937--1,887; 1936--2,045

Of the 1,889 visitors to the monument, 1,498 were contacted on guided trips through the ruins, the museum, or both. A total of 9,890 minutes was spent in conducting 274 parties through the ruins, for an

CASA GRANDE (CONT)

average time of 36.1 minutes per party. In the museum 4,701 minutes were spent with 204 parties, for an average time of 23.0 minutes. (See "Casa Grande Visitor Statistics" under the Headquarters section of this report.)

During the month 49 parties made up of 219 visitors used the picnic grounds. All of these were either small groups of travelers or family groups of local Coolidge and Florence people, with the single exception of one picnic of the Phoenix and Coolidge congregations of the Church of God, held here on Sept. 18. About 70 people attended the picnic and the services held in the afternoon.

Visitor travel by states is as follows: of the 1,221 persons who signed the register, 751, or 62 percent were from Arizona; 137, or 11 percent, were from California; 67, or five percent from Texas; and 61, or five percent, from Oklahoma. Other states having more than 20 registrations were Missouri, 32; Illinois, 28; and Ohio, 21. Visitors from 32 states, the District of Columbia, and China signed the register. Again this month, Michigan shows fewer than 20 registrations, as occurred during August. Boss, what has happened to the people from the state where automobiles are made? Are they too poor to buy and use their own products, or are they learning to prefer Eastern and Canadian scenery?

NATURE NOTES:

The Creosote bushes on the monument are again blooming, although in a half-hearted fashion. Also, several of the compass cacti near the headquarters building bloomed during the early part of the month, one plant having seven bright reddish-orange blossoms.

One Gila Monster was seen on the monument, by Enrollee Guide Holt, near the ball court during the evening.

Several times during the month, the gopher and whip snakes living in the ruin have been observed dining on fresh bat meat. The first time this occurred was on September 14 when two of the visitors obtained several photographs of a whipsnake with a half-swallowed bat in its mouth. For some reason, the snakes always eat the bats head first--I presume in this manner so the wings do not prevent swallowing the bat entire. Why the bats, with their sharp teeth, are not able to damage the snake enough to make it release them is a point of interest, for they certainly are eaten alive. On two separate occasions bats have been rescued. One was even able to fly a few feet, although both were quite seriously injured, particularly around the breast.

CASA GRANDE (CONT.)

CASA GRANDE CCC SIDE CAMP:

- Job #50--Shop: No work done on this project this month. No man-days expended.
- Job #51--Warehouse: Floors finished; conduit and wiring are now 40 percent completed; water connections installed.
Man-days--66.
- Job #52--Oil house: Wash rack roof has been completed; concrete floors poured; concrete splash wall of the wash rack completed; conduit wiring installed; inside walls were plastered, with exception of front wall near door-casing; gas tank and pump moved and installed; air and water service installed. Man-days--111.
- Job #53--Guide Service. Rodgers and Sheffield are still doing duty as guides to the visitors; Coyle started the month as a guide, but was taken to Phoenix, sick, on the 14th, and operated on for appendicitis the following day. He is recovering nicely, and says that he is really getting service in the Indian School Hospital at Phoenix. Mungerro is still acting as extra clerk in the headquarters office, although he was off five days during the month while having glasses fitted. Vic Scholz is acting as mimeograph operator and general handy man for the naturalist division, as in past months. Man-days expended on this work total 119. This includes Teddy Savage who acts as Enrollee Mechanic's Assistant.
- Job #55--Making Adobes: Approximately 2,000 adobe bricks were made during the month for use in the walls and equipment shed. Man-days--26.
- Job #59--Water Line: The water line to the new utility area was completed, as far as is possible at this time, during the month. Man-days expended total 42.

Camp Maintenance drew 20 man-days labor this month. This includes cleaning up the area, repainting the barracks and wash-house, and some construction. The new recreation and educational building was laid out and work started on the foundation. This work will necessarily be slow, as time can be best spared from the work project.

Two new men arrived from NM-2-A during the month, and two of the older men, Mendoza and Galvez, returned to Chiricahua for discharge October 1. Munoz also returned to the main camp for discharge, but was re-enrolled under a new special classification which was set up to take care of over-age enrollees. He returned to work on the 24th.

One lost-time accident occurred during the month. Teddy Savage ran a cold chisel partially through the back of his right hand while

CASA GRANDE (CONT.)

cutting rivets on September 14. After first-aid treatment here, he was taken to the hospital at SP-3-A that evening, and returned to the side camp on the 17th.

Chaplain Hurd held religious services in the side camp August 28 with an attendance of 16 men.

Camp Inspections were as follows:

- Sept. 1 -- Capt. Harvey, Commanding Officer from SP-3-A, in Phoenix.
- Sept. 2 -- Lt. Willson, Commanding Officer from NM-2-A, at Chiricahua.
- Sept. 14 - Lt. Kieling, the new C.O. at NM-2-A, replacing Lt. Wilson.
- Sept. 14 - Mr. Stevenson, Project Supt. from NM-2-A.
- Sept. 5 -- Major Hildring, Arizona District CCC Commander, from Phoenix.

*****SWM*****

PIPE SPRING

By Leonard Heaton, acting custodian,
Moccasin, Arizona.

Visitors this month, 303; travel year 1938, 2,245.

Among the visitors for the month of September were Assistant Superintendent of the Southwestern Monuments, Hugh Miller and Mrs. Miller. I was somewhat surprised to see them at this time, and I did not get to discuss the affairs of the monument as much as I would like to with Hugh, as he was here only about two hours and the most of that was spent in conference with Camp Commander. I hope that the Millers can stay with me a little longer next time.

Mr. Browson Stringham, geologist from the University of Utah, was here on September 16 doing some more work on the Sevier Fault that passes by the monument. He says that the maps prepared by Vandiver on geological features of the monument will have to be changed somewhat.

Editor Donald Steele of the new Kane County newspaper was out soliciting material for his paper. He wants us to use it, if we have anything to put before the people. I am wondering if we could not work up some interest locally so that we might get more donations of pioneer furniture for our museum. I don't know just what to do to go about it; any suggestions?

The contact work for the month records 117 visitors. These people came in 37 parties spending 1,165 minutes at the fort.

PIPE SPRING (CONT.)

Then we had 38 people using the camp grounds either for overnight camping or for picnics. The local travel, or runarounds as they are listed, has been 148 making the total of 303, slightly under the total for August.

Weather for the past month has been rather dry and hot, although we have had considerable cloudy weather and cool nights, but no frost as yet. There have been some storms in the mountains and two very light rains the forepart of the month, but not enough to more than wet the top of the ground. My record shows that we had nine cloudy days, 13 partly cloudy, and eight clear days.

CCC

Upon the receipt of word that Project No. 7, Ditch Elimination, was approved, I secured the use of the dump truck and six boys and started them to work hauling the sand that washed into the diversion ditch at the upper end by the floods the forepart of August. They are putting it into the wash that we are filling.

While I was away from the monument August 21, some CCC boys got into the fort and burned up some old papers and magazines. I went to the Camp Commander and told him about it and asked if something could not be done. He issued an order to the effect as follows: "Any CCC enrollee found loitering around the fort outside of the Camp area will be fined \$3.00, especially if the Custodian is not on the monument; and if any is caught molesting, marking, or damaging anything, it will be grounds for a discharge." This order is still in force and will be as long as the present Commander is in charge.

It has been a month during which I could find nothing to complain about, and things that in the past were irritating have stopped. In addition, the visit of Hugh Miller to the Camp Commander started things going fine and dandy here at the monument, and everything is working out O. K.

Some 50 or 60 boys are leaving for their homes in the east today; some are darn glad to get away from the western country, and others don't want to go.

The fall sale of cattle has commenced here with small bunches being trucked out rather than making the long drive to the railroad, as has been the custom in the past. The prices are very low and some of the stockmen do not know what to do as they have some notes and loans to pay off, and the way the prices are it will take nearly all the cattle they have to meet their obligations.

Not only the wild animals are storing up their winter food supply, but you will find in every town the good wives canning fruits and

PIPE SPRINGS (CONT.)

vegetables; drying what they are able of all kinds of fruits, as they have not learned to live out of the markets as have people in the cities.

The time not spent in conducting visitors through the monument, I have used in doing the many little jobs that are ever present; trying to keep the monument clean, in repairing and building it up to where we want it to be some day. I believe I have things in good shape at present and am able to keep up with the work that requires daily attention, and doing quite a lot besides. Anyway, I am enjoying myself very much and look for a successful winter.

*****SWI*****

GRAN QUIVIRA

By George Boudrey, custodian,
Gran Quivira, New Mexico.

Visitors this month, 172; travel year 1938, 3,113.

About all I can say of the visitors who have weathered our roads this month is that they were well satisfied with their visit in spite of the roads.

Due to our rains, the grazing conditions have never been better and the fall wildflowers are gorgeous. From the immense numbers of warblers we see everywhere there must be cold weather in the north.

From the amount of excavation done at the State Park at Abo, I am told that very little museum material has been found. The principal trouble seems to be to separate what is Indian from the earlier and later Spanish and Mexican artifacts. I believe Arthur Woodward might help them out of part of their difficulty,

I made two trips to Albuquerque during the month to get an infected hand lanced. The doctors say New Mexico has more types of infection than any state of the Union, and I am beginning to believe it.

Work on the monument this month has been principally work on roads. The ruins stood the rains very well and with little apparent washing but some of the arroyos were running bank full and there the erosion has been considerable.

*****SWM*****

CHIRICAHUA

By Frank Fish, custodian,
Douglas, Arizona.

Visitors this month, 576; travel year 1938, 9,145.

Heavy rains occurred during the first half of the month which brought the total precipitation since July 1 to 11.5 inches.

Approach roads are in excellent condition. Oiling has been completed between Elfrida and McNeil and preparations are being made to oil the remaining five miles toward Douglas. Cochise county has completed the realignment of another section between Dos Cabezas and the monument, and are now starting construction of a road from Bowie to connect with the Willcox-Monument road. This road is to be built under FWA grant and an attempt will be made, after completion, to designate it a State highway.

The monument boundary survey was completed and markers posted at 500 foot intervals; upon receipt of additional markers, postings will be made each 100 feet. Portions of the boundary are in heavy thickets and, even with markers every 100 feet, some difficulty is expected with hunters who walk through not realizing they have entered a game refuge. Mrs. Frank Hand, Mrs. Martha Stark, Ben Erickson, and Ed. and Lillian Riggs who hold land on the south and west boundaries of the monument are attempting to have their land set aside as a state game refuge.

Comparative guide records for September are as follows:

	Trips	Attendance	Time
Sept., 1938	124	519	7,940 minutes
Sept., 1937	81	583	3,963 minutes

NPS Visitors:

Mr. and Mrs. Gable of the Washington office were in on September 22 and 23 relative to the proposed concessionaire's developments.

*****SWM*****

CHIRICAHUA CCC

By Wm. Stevenson, project
superintendent,
Douglas Arizona.

Five hundred square yards of rock banks were sloped on Bonita Highway three miles north of the Sugar Loaf truck trail intersection. Materials were used to rebuild cut banks where excessive width had resulted from "day-lighting". Four hundred square yards of banks were sloped three fourths miles west of Bonita Park. Materials were used to raise the grade where concrete bridges were installed, and for surfacing.

One quarter mile of Bonita Highway was re-surfaced near Bonita Park. Ditches and culvert basins were cleared.

The roof was completed on the Chiricahua warehouse, concrete floor poured, and partitions are now being constructed.

Doors, door frames, window cases and cabinets are being fabricated in the carpenter shop for the Casa Grande utility buildings.

The boundary survey was completed this month and posting will be completed when additional signs are received.

*****SMM*****

WALNUT CANYON

By Paul Beaubien, junior park
archeologist,
Flagstaff, Arizona.

Visitors this month, 1,913; travel year, 1938, 13,526.

There were 633 cars, 980 contacts in the ranger cabin, and 1,703 contacts at the canyon.

Park Service Visitors:

On August 25, Engineer Tovrea tentatively located the proposed road connecting the observation point with the entrance roads and on August 31, Jack Diehl thoroughly inspected the trail work in the canyon. Dale King and A. H. Kelly arrived the night of September 2 and left September 4, after considering ruins stabilization at Walnut

WALNUT (CONT.)

and Wupatki. Tommy Onstott stopped by on his way south. Luis Gastellum was at the CCC camp a few days and paid Walnut a welcome visit. Hugh Miller was here the 16th inspecting and planning work with Project Superintendent Parker. On September 20, Jack Haile visited both the monument and the CCC camp. Next day he was back with Távrea and Al Keuhl. I saw Milton Wetherill as he prepared to return to Navajo. On September 23, Doctors Gould and MacDougall stopped for an hour or so.

SPECIAL VISITORS:

Major Brady, curator of geology at the Museum of Northern Arizona, visited the monument September 2 to help provide an effective geological story for the visitors. Alfred F. Whiting, curator of botany at the Museum of Northern Arizona, was here to answer my questions on ethnobotany. He donated some 37 samples of Hopi bean, corn, and sunflower seed which prove quite interesting to the visitors. His bulletin on plants used by the Hopi Indians is now in press. Dr. Little, of the Southwestern Forest and Range Experiment Station, donated a bulletin which contains the only available weather statistics on this immediate vicinity. Art Woodward stopped overnight on his way to the Navajo Fair at Window Rock where he was to judge some of the Navajo craftsmanship. He spent some time in the canyon and gave me some new ideas which I'll try to pass off as original some time. I believe that Art's bulletin on Navajo silver, published by the Museum of Northern Arizona, is a valuable contribution on the subject. Addison Pinkley stopped by for a few minutes on his way back to the university.

CCC

The architect and the engineer are now on the job. Thus, the supervisory force is complete. Work on the canyon trail and on the house is progressing satisfactorily. The location of the entrance road has been approved and the center line staked. Logs for shakes, fence rails, picnic tables, etc., are arriving every day. The stone quarry has been worked continuously since the inception of the project. The technical buildings at the camp will soon be finished.

There are four CCC boys, Chester Leffler, Thos. Maloney, Salvadore Cataldo and Ralph Beishline, guiding visitors. Each works three days and lays off one. We have tried various systems of meeting visitors, and are still experimenting. Have found that the more help I have, the more statistics there are to record, and the more book-work I have to do. God bless SWM stencil #16!

(Note: Unofficial word has just been received that an addition of 913 acres to Walnut Canyon has been proclaimed --Ed.)

WHITE SANDS

By Tom Charles, custodian,
Alamogordo, New Mexico.

Visitors this month 14,446; travel year 1938, 110,805.

This has been a busy month, 'though the traffic is off something like 40 percent from August. On the First day of the month, Miss Harlean James visited us; her first trip in something like three years. When she was here before, it started raining within three minutes after she drove into the monument and it fairly poured as long as she stayed. It was fully as bad this time or worse. Mr. and Mrs. Charlie Steen and I tried to give her a glimpse of the Sands and it rained so hard that we couldn't see the hills on either side of us. She finally left in a torrent of rain. We are not objecting to the rain, but it would please us more if we might have fair weather once when Miss James visits us.

Our time the past week has been turned over to the county fair and the White Sands booth, so far as the Charles family is concerned. The out-of-town judges gave us a blue ribbon on it; because it was the only entry in its class, the boys say. It was non-competitive and I guess the ribbon simply meant that they thought it was good. Next to us was the booth of the Lincoln National Forest, its first appearance on a regular circuit of county and state fairs. They figure that they will contact 400,000 people at an expense of half a cent each. Well, the \$1.85 of Charles' money which went for crepe paper decorations beats their expense record a city block, as I figure it cost less than .02 of a mill for each of the 10,000 visitors recorded on the two days of the fair. I can assure you that every one of them saw the family of white lizards and asked an average of six or eight questions about them. It was really a pretty good exhibit, if I do say so, as shouldn't. We had everything under borrowed glass, except a load of sand. The big 40 inch solenite crystals had been calcined half way down to show how plaster of Paris is made from them, and a box of calcined sand accompanied them, all mounted against a back ground of baby blue, (white sand run through blueing water). The second case contained samples of our outstanding publicity for the past year; a spread from Nature Magazine, the New York Times, the National Geographic, and on and on, to the first prize White Sands picture in Desert Magazine in the current issue. Not bad publicity and plenty of it parked around a center piece picture of our new buildings. The third case contained samples of petrified wood from the sands, cocoons made from gypsum, Folsom points, and other articles of interest. Then there was a glass case

WHITE SANDS (CONT.)

with a few of Borell's birds and a family of Joe's pet lizards. The walls were a dark blue, decorated with six of Dorothy Waugh's National Park Service streamers featuring the protection of wild life, sports, and other attractions. But, of course, all this was but trimming, the real thing was a load of white sand, with a spray of natural flowers and the ripples along the dunes.

Well, it is all over now, the specimens are back in the cases, the lizards back in the Sands, the hard work is forgotten, and we have only the memory of pleasant contacts and new friends made for the Great White Sands.

In the past week we had two outstanding parties; Mr. and Mrs. Chas. E. Ohmsted of Chicago University (Dr. Ohmsted is professor of plant ecology there. They traveled 16,000 miles last year "seeing things" as they put it) liked the Sands so well that they stayed right there for sunrise. And we now have Dr. and Mrs. John E. Hill of the Museum of Natural History, New York. They are especially interested in a study of the white mice and other mammals.

Work at the monument has been rather slow. The telephone line project was held up because of some delay regarding the right of way, and the new seal coat on our road is waiting for approval on some little changes. But there is nothing serious. The rains have made the valleys beautiful with gorgeous colors and, except for the slump of 40 percent in our attendance, I think we are doing as well as usual.

Park Service visitors have also been scarce this month. Charlie Gould and H. H. Hawkins gave us the once over the first part of the month and went home and told Leo McClatchy about finding certain kinds of fish in a hole which we dug to study the water level. Another first-time group of visitors was Mr. and Mrs. John Will Faris and Mrs. Faris' father. I think they liked the Sands almost as well as Canyon de Chelly.

*****SWM*****

TUMACACORI

By Louis Caywood, custodian,
Box 797, Nogales, Arizona.

Visitors this month, 992; travel year, 1938, 15,289.

GENERAL

The past month, although included as still part of the "rainy season", has not been very wet. There was one good soaking rain and also several showers. The trees and shrubs planted this year had to be watered.

TUMACACORI (CONT.)

occasionally.

On the Sunday before Labor Day, September 4, there was a Candidates' Barbecue across the road from the mission at the Tumacacori Bar, with horse races and all the trimmings. Superintendent Pinkley and party were able to see some local color during the celebration. Many local people, during lulls in the program, made trips to the mission and kept the ranger and guide very busy. In all, 217 people visited the monument that day. On Labor Day, when a large number of visitors were expected, only 48 stopped.

The total number of guided visitors this month was 848 plus 78 who used the monument facilities, a total of 922 visitors.

MUSEUM NOTES

About half of the visitors to the monument were allowed to see the unfinished museum. Seldom does a party go through without some word of praise. One lady a few days ago said, "Why you would think you were at one of the large museums in New York or Pittsburg."

The people of Santa Cruz County realize that the museum is of great importance and educational value and, after seeing it themselves, bring their friends and urge others to see the exhibits.

As the allotment for the operation of the museum building is not nearly enough to operate this building for a year, the custodian is trying to cut down on the biggest expense, namely lighting. One way of doing this is to have only enough lamps in the reflectors for people to clearly see each panel case. The dioramas, of course, must be fully lighted to give their full effect. However, in the panel cases where there is room for eight 40-watt bulbs, the number has been cut to two or three bulbs, which ever is needed.

PARK SERVICE VISITORS

Miss Gertrude Hill, ranger-historian (temporary) from headquarters at Coolidge, was a visitor on September 3, with her mother and father, Mr. and Mrs. E. B. Hill of Ysleta, Texas. Miss Hill said she was just starting her nine months annual leave until the summer of 1939. Her chief interest this trip was in the museum, of which she had been hearing so much in past months.

On September 4, Superintendent Pinkley and Mr. and Mrs. Charlie Stoen of headquarters brought Miss Harlean James, who was visiting various of the western state and national parks and monuments. Miss James is well known to Park Service people as the Executive Secretary of the National Conference of State Parks and as editor of the year book, "American Planning and Civic Annual". These visitors covered

TUMACACORI (CONT.)

the monument pretty thoroughly and ate their lunch under the trees by the old office. The ranger was sorry that he could give them hardly more than a greeting, because of the invasion of visitors from across the road.

September 14 brought Mr. and Mrs. Natt Dodge from the headquarters Naturalist Division to the monument. Natt's mission was to take pictures of the various developments on this area.

OTHER VISITORS

Mr. and Mrs. W. L. Chapel, of the U. S. Forest Service at Williams, Arizona, were visitors on August 27, and Mr. and Mrs. H. D. Billings of the General Land Office, Washington, D. C. On August 30. Mr. and Mrs. Rex B. Mesny of Berkeley, California, were interested monument visitors on August 31. Mr. Mesny was formerly an assistant state engineer in Arizona, and is now an engineer for the W.P.A. in the Pacific Coast District.

PERSONNEL

The custodian returned to duty September 19, after a month of annual leave during which he and the H.C.W.P., in true postman holiday fashion, visited quite a few of the national parks and monuments. Miss Louise Whittaker, a friend from Washington, D. C., who made her first visit to the Great Southwest accompanied them.

*****SWM*****

MONTEZUMA CASTLE

By Earl Jackson, custodian,
Camp Verde, Arizona.

Visitors this month, 1,155; travel year, 1938, 10,645

WEATHER:

Days clear	16	Max. temp.	102 (Aug 25)
Days partly cloudy . .	12	Min. temp.	50 (Sep 22)
Days cloudy.	3	Mean Max.	91.8
Precipitation	0.88 inches	Mean Min.	56.4

The weather has remained pleasant--cool in mornings and evenings, and warm in the afternoons; generally clear and dry and quite enjoyable despite the occasional visitations of smoke from the smelters at Clarkdale, some 20 miles north of here. Beaver Creek has been flowing

MONTEZUMA CASTLE (CONT.)

after a fashion throughout the month.

VISITORS:

A breakdown of our travel figures for this period shows that the 1,155 people arrived here in 351 cars, of which 214 were Arizona, and 137 out of state. Eight of these visitors came in afoot. A check of the register shows registrations from 36 states and territories, and from Mexico and China as well. Field trips were taken by 795, most of these being through the Castle itself, and museum service was extended to 405 people.

On September 4, Dale King and Dr. Kelly, of the Washington Office were in for a short inspection trip. The ranger found himself somewhat swamped by a horde of weekend visitors and regretted exceedingly not having been of greater aid to Dr. Kelly in his examination of the Castle.

On September 6, we had the honor of taking Miss Harlean James, Executive Secretary of the American Planning and Civic Association, through the Castle. Miss James was accompanied by Mr. and Mrs. Hugh Miller, and we hope she found her visit here as pleasurable as we did.

Other newsworthy visitors this month include: E. S. Hathaway of the Department of Zoology, Tulane University, who visited us Aug. 24; Herman O. Darrh, Jr. landscape architect, Recreational Planning, U. S. Forest Service, a visitor on August 28; G. L. McLane, senior highway engineer, U. S. Bureau of Public Roads, Phoenix, who was in for a short visit on September 1; Carl L. Hubbs and family, of the Museum of Zoology, University of Michigan, who collected some fish with Earl on September 2; Joseph I. Miller, of the WPA Arizona Guidebook, on September 4; and E. Hill Leith of the Beaver Creek Ranch on September 7.

ROADS:

Approach roads to the monument are in reasonably good condition. Construction still makes the Cornville entrance a bit unpleasant to tourists, and the lack of rain for the past two weeks has made the Big Park and Camp Verde entrances somewhat rough, but quite passable. Our dropoff in travel the past fortnight must be attributed to the normal slack occurring as schools open over the country.

PERSONNEL:

Custodian Jackson departed September 3 for a well-earned vacation in New England, and, although no word has reached us, we are sure he is enjoying his leave. We trust he suffered no misfortune in the recent

MONTEZUMA CASTLE (CONT.)

heavy fogs that reports have suggested are occurring in that region, and that he will be back with us again next month. In the meantime the ranger tends the monument, and although pretty rushed the first week or so, has profited by the recent slacking off of travel and all activities are current at time of writing. One should add a word of appreciation to Norman Jackson, the operator, and his wife who, during rush periods, aided greatly in registering visitors when field trips prevented the ranger's presence at the museum.

EDUCATION:

As Betty Jackson is with Earl in the East, there will appear no bird notes for September. Speaking generally, however, there seems to be a general exodus of many bird types from the region--going south for the winter no doubt. The ranger is submitting a brief geological sketch of the region herabouts so that there will not be a total dearth of nature notes from Montezuma Castle. (Hold for October Supplement. Ed.)

By arrangement with Mr. G. K. Greening, meteorologist of the Phoenix Weather Bureau Station, equipment for establishing a Cooperative Weather Observation Station arrived September 12. Although it has been inexpedient to set up this station by this date, it is hoped to have it functioning soon. This station should supply valuable data as to weather conditions in this area.

MISCELLANEOUS:

Activity has been noted in the old Davis homestead, visible across Beaver Creek from Montezuma Castle, and on September 17 it was observed that the old farm house had been razed. Although the foundations of this structure still remain and two shacks nearby are visible, the removal of this dilapidated building has improved the view from the parapet of the Castle to a considerable extent.

*****SWM*****

CANYON DE CHELLY

BY Johnwill Faris, custodian
Chin Lee, Arizona.

Visitors this month, 268; travel year 1938, 1573.

We have just finished one of the most interesting months of the entire year for Canyon De Chelly. The Gallup Ceremonial, snake dances, numerous Indian dances, and even the Santa Fe fiesta, all tend to increase

CANYON DE CHELLY (CONT.)

our visitors for the month of September and, too, it seems that they were all so nice. The week following the Ceremonial in Gallup we were very busy, and then travel dropped quite a bit, the total travel for the month being 268. This is a slight decrease over the same month last year but that can easily be accounted for in that we have had rains much later this year than last.

The custodian was away on annual leave the first ten days in the month and rangers Ingle and Spires did a fine job of running the monument. Some mighty fine things have been said about the way they treated their visitors. Even the boys that lost their car had nothing but praise for my rangers. This might bear explanation, the loss of the car, I mean. Last in August a couple of boys from California were in taking color pictures and attempting to get some shots of points quite some distance up the canyons. For ease in getting what they wished, they requested that they be allowed to stay on in the canyons for two or three days. They were well recommended and known by Lippincott, and we were glad to help them by granting their request.

They were very carefully warned as to what they should do in case of rain and in regards to the Indians. All was well until rains made the canyons a stream bed and delayed the boys even longer than they wished. The delay caused them to take chances and, as I understand it, they attempted to shift gears in a stream and the short pause settled the car enough so that it was stuck. A rise in the stream settled the car and ruined it. The boys got out and saved a lot of their equipment but the car was a total loss. It was left in the wash and, upon my return, with the help of the CCC camp, we got it out by taking a wrecker up the canyon and lifting it out of the hole. The Indians had dug quite a hole and took what they could. The boys caught rides back home and the last I heard had obtained insurance on the car, so they were fortunate. They had no feeling against the Park Service and when told that the Park Service should not have let them in when the wash was bad, replied, "Lay off the Park Service, it was not their fault at all and had we listened to what they told us we would not have gotten stuck in the first place." Compared with last year, there has been very little travel in private cars in the canyons. It has been so dry that it was impossible most of the summer and, now that it is pretty good after the rains, the peach crop and the rush of Indians into the canyons to trade for peaches cuts it up until it is hard to travel. There is a good crop of peaches, and the canyons have an added charm, in that dozens of places can be noticed where Indians are drying the peaches against the sides of the cliffs. Harvest time in the canyons is one of the most interesting periods of all seasons. It will be only a short time now until the Indians will be moving out of the canyons onto the rims for the winter. Several reports have reached me of late that bears are bothering stock in Del Muerto, but to date I have not heard of any being killed although the Indian Service granted permission that they be killed. I think a couple of parties went out from the school but no bear has

CANYON DE CHELLY (CONT.)

come in.

I had my first even minor accident the other day in going to town for supplies. As nearly as I can determine, a front tire blew out and landed me right side up in the borrow pit but damaged the running board and fenders on one side of the car and blew out two tires on sharp rocks. At least, two had to be replaced before I could get back home. I borrowed tires to go on into town.

Both my rangers left this month, Ingle pulling out at noon September 12, and Woody at the close of work September 24. They will be missed even though our travel has dropped to almost nothing. Woody sure improved the looks of the place by adding a coat of paint to all the windows doors and canals. It helped a lot.

On my leave I dropped in to see a couple of the other men and swap yarns with them. For the first time I met Mr. and Mrs. Charles and viewed the famous White Sands. I hardly think, Boss, that Tom has all the cause to do the bragging he does, 'cause truly, we could hide that pile of sand in either of the canyons and with big tires drive right on over them as though they were not there; of course, barring the possibility of running into a couple of those horses Hugh wanted to stop and ride, or was it just pet? Anyway we did enjoy the Sands and, equally as well, Tom and Mrs. Charles. They are cordially invited to make us a visit and then I am sure Tom will understand why I thought his pile of sand was so small. Cal. Miller and McKinney with the aid of Jimmie Brewer made several very feeble attempts to belittle De Chelly, but I was glad to get back after ten days just the same.

Word has just been received that a group from California will be in on me this morning so I better get ready for them. Our roads are being improved to Ganado now, and while we have several detours at present, it will be a big help this winter. So, Boss, we close another travel year with a slight gain over the last one. There is little doubt but that each year will show an increase and in time de Chelly will come into its own.

*****SWM*****



WUPATKI

By David J. Jones, park ranger,
Tuba Star Route,
Flagstaff, Arizona.

Visitors this month, 553; travel year 1938, 2,754.

WEATHER:

During the past month we have been having a wonderful "Indian summer". There is the tang of fall in the air with pleasantly warm days and cool nights. Rains during the early part of the month were encouraging; while they lasted, but there was only a total of .70 inches.

TRAVEL:

Visitor travel to the monument during the past month has been abnormally heavy; a total of 553 visitors which is an increase of 207 over the same month last year. Right after the first of the month we noticed the usual decrease in the travel, but within a week it had picked up again. After talking to business men in Flagstaff, I have decided that it is due to the American Legion Convention over on the coast.

GENERAL:

Since September 5, an engineering party headed by A. W. Shirley has been taking topography around the Wupatki ruin for the development of our headquarters area. At this writing, they have almost completed the mapping here and intend to spend the next few days at Sunset Crater.

On September 20, Al. Kuehl of the Branch of Plans and Designs, J. H. Tovrea of the Engineering Division, and Mr. Ward of the Bureau of Public Roads spent the day on the monument looking over the possibilities of an entrance road from Highway 89. By the end of October, the survey party should be in here.

The Wupatki spring was checked again this month and found to flow approximately 540 gallons per 24 hours. This is well above the lowest figure I have found so far, 490 gallons in July. Dr. Charles N. Gould, regional geologist, dropped in unexpectedly on the 23rd to look over the spring. Unfortunately, I was not here at the time.

NEWSWORTHY VISITORS:

National Park Service visitors for the month include the following:

WUPATKI (CONT.)

Dale King of headquarters and Dr. A. W. Kelly, consulting archeologist, on the 3rd; Jack Diehl, regional engineer, on the 4th; Al Kuehl of the Branch of Plans and Designs, J. H. Tovrea of the Engineering Division on the 20th; W. B. MacDougall, regional wildlife technician, and Dr. C. N. Gould, regional geologist, on the 23rd; and Bill Leicht and Milton Wetherill on the 10th. On the 23rd practically everyone at the Petrified Forest came over to see Wupatki. The party included Mrs. White Mountain Smith, Park Naturalist Stagner and wife, and Ranger Benson.

CCC inspections for the month included Jack Haile and Clay Parker, the latter from NM5A. Speaking of visitors, we are sorry to lose Bill Leicht from Navajo. The three of us have spent a number of pleasant evenings in Flagstaff thrashing over the problems of the world. We wish Bill the best of luck in his new job at Boulder.

Other visitors for the month included the Coltons, Katherine Bartlett, and Major Brady of the Museum of Northern Arizona. On September 22 Dr. Colton returned with Dr. LaMotte, a paleobotanist from Berkeley, with whom we had a nice visit. Mr. Randall Henderson, editor of the Desert Magazine, dropped in for a short visit. Friends of our^s visiting Wupatki during the month were Miss Margaret Love, Nancy Pinkley, Jean McWhirt of Tucson, and Addison Pinkley.

CCC ACTIVITIES:

A crew of 10 CCC boys has been working on the monument at add times during the month doing several small jobs for me such as clean up, scraping the roads, picking juniper berries, and building a stone water trough.

USE OF MONUMENT FACILITIES BY THE PUBLIC:

At the Citadel 362 visitors registered, at Wupatki 290. Since 99 names were found on both reigsters, the total travel to Wupatki National Monument for this month is 553. One party of three camped overnight.

ARCHEOLOGY:

On the 20th the CCC boys discovered a burial while excavating for a clay pit. I started to uncover it, but because of its condition thought that it might be of interest to Dr. Colton. He sent Milton Wetherill out on the 22nd and came along later to photograph it. Actually there were two burials alongside each other. Roots from plants had so penetrated the bone that the bone looked more like root than anything else. A complete report with pictures will be prepared shortly.

WUPATKI (CONT.)

EDUCATION AND RESEARCH:

On the 3rd of September, Al. Whiting of the Museum of Northern Arizona and I spent the day between here and Sunset Crater trying to find suitable locations for ecology exhibits along the road. We located several areas which would be of great interest to the visitor.

On the 15th, 150 plants were sent to headquarters to be identified. This collection will furnish the basis of an herbarium for Wupatki to be augmented as time permits.

During the month, six study skins of mice and rats were prepared with the aid of Milton Wetherill. Having found the work so interesting we hope to be able to do more of it this winter.

*****SWM*****

SUNSET CRATER

By David J. Jones, park ranger,
Tuba Star Route,
Flagstaff, Arizona.

Visitors this month, 823; travel year 1938, 6,922

TRAVEL:

A total of 823 visitors registered at Sunset Crater during the month, an increase of 215 visitors over the same period last year.

GENERAL:

Probably the most important occurrence at Sunset this month was the installation of the new register. As mentioned in the last month report, we had the CCC camp make a nice looking wooden box and on the lid of it Cork made a picto-map of Sunset Crater, at least the most important features of it from the visitors' point of view. For those wanting details concerning the features, two typewritten pages of information are glued to the underside of the cover. In this manner, I felt we would not only disseminate a bit of information, but out of curiosity the visitor would raise the lid to find out a bit more about the crater, and register. Hence, I was expecting the increased registration at Sunset, but now that there is such heavy travel at Wupatki I am not so sure whether or not my new register draws the attention of the visitor. However, I do know one thing; since the installation of the new register, I have not had any visitors coming to Wupatki thinking that the road down here led to the top of the Crater. Photographs of the box are being sent to you for development.

CAPULIN MOUNTAIN

By Homer Farr, custodian,
Capulin, New Mexico.

Visitors this month 6,500; travel year 1938, 30,200.

Another September has rolled around and almost gone, and seems to me very little was done this month. Approximately 6,500 visitors came to the old volcano this month, partly because the weather has been so wonderful and all the roads in the country in good condition. In fact, the only road in the entire country that was not in splendid shape was our own road on the monument, and I have really worked on it most of August and part of this month and still it is in bad condition; but it must be understood that I have done this single handed. We had a good rain on the first, 10th, and 12th; have had extra nice weather all month, and to date have had no killing frost but had a slight trace about the 20th that did no damage.

W. Ward Yeager of the Park Service was a very welcome visitor.

The general condition of the community around this monument is not any better than for the past few years. While some light crops have been raised there are mostly failures. Grass is good and all live stock is very fat, but there are many farmers who try to make a living for their families by straight farming and they are, as a rule, working on some distant WPA project going probably 30 miles each day to work and returning in the evening. Some corn and considerable feed crops will be harvested.

The custodian has enjoyed most all of his family at home part of the summer but they have now all gone to their respective places of abode and it is rather suddenly lonesome. I am just in receipt of a letter from the wife of my first cousin who died last week and who was a grand old 32nd and a great lover of the Capulin Mountain country. Only a few years ago he was here and said to me one morning, "Homer, we have got to see the top of old Capulin this morning before breakfast," and we did. The top of Capulin Mountain presents both a sunrise and sunset scene long to be remembered. Mr. Miller, let me prove this to you, please.

*****SWM*****

BANDELIER

By C. G. Harkins, custodian,
Box 669, Santa Fe, New Mexico.

Visitors this month, 1,810; travel year 1938, 14,619.

September began with a rain that certainly was welcome, and, for the last ten days, we have had showers nearly every day. The range is in good condition and ranchers in the lower valley have been moving their stock down from the summer range on the Santa Fe National Forest. The past month 25 head of cattle have been put out of the Otowi Section. These were wearing unregistered brands, and there still remain 14 head that will be removed in the next day or so.

Travel has been very slow the past ten days. September shows a decided decrease over a like month in 1937; 1,810 visitors were in the monument taking 131 trips through the ruins, averaging 5.5 visitors per trip. The museum has not functioned as I would like to see it and it will take considerable experimenting to find out how it should be handled to give the visitors the best picture and keep them interested.

WEATHER:

Days clear	7	Max. temp.	91 ^o
Days cloudy	11	Min. temp.	40 ^o
Days partly cloudy . . .	13	Precipitation	3 in.

IMPROVEMENTS AND NEW CONSTRUCTION:

W. W. Barton and Son began moving their equipment in to surface the entrance road on August 31. Actual work was begun September 8 and has proceeded very satisfactorily. At the present time the contract is approximately 50 percent complete.

MAINTENANCE:

Boundary fences on the Otowi Section have been repaired. In some instances, considerable damage was done to the fencing by high water during the summer, but these places have all been rebuilt. The fence on this area works on a reverse scale; instead of keeping the stock out, it keeps them in.

RANGER SERVICE:

Irving McNeil, Jr. went off duty effective August 31, and Thomas Onstott was released September 5. Both Onstott and McNeil are returning

BANDELIER (CONT.)

to school, McNeil to George Washington University, and Onstott to the University of Arizona.

The museum was closed for several days during the installation of the glass for the cases. This work has all been completed and we are awaiting the arrival of more exhibits. Labels have been received for cases 14 and 15. Geologists Gould and Hawkins have been out in regard to the geology cases. Mr. Hawkins made an additional trip down to the river securing samples and endeavoring to establish where the red material used by the former inhabitants in painting the interior of some of the caves came from.

USE OF FACILITIES BY THE PUBLIC:

Travel continued very good up to and including Labor Day, followed by a sharp drop after the Santa Fe Fiesta. The condition of our approach road had considerable bearing on the decrease in travel. There have been more complaints by the visitors about the road from Pojaunque to the Otowi Section during this month than at any other period, and complaints have all been legitimate. The road has been practically impassable at times and no provision has been made by the State Highway Commission to extract cars that became stalled.

On September 29, 800 Taos Indians will gather to celebrate the annual Sunset Dance on the eve of San Geronimo Day, and chant their praises to the setting sun for their good fortune through the year. The Indians who live in set-back architecture, considered the latest thing in eastern cities for apartment houses, dwell within the immediate area of Taos and each year present their colorful Sunset Dance before the Mexican fiesta program the following day. Around a huge pole at top of which is a crude cross, the Indians dance and chant in the setting sun, while women folk and spectators stand in a wide circle about the pole. The ceremonies continue on into the night until the Mexican revelers take over the spirit of the occasion to start their own fiesta.

NEWSWORTHY VISITORS:

Senator Robert Thommyre of Paris, France, a member of the International Committee on Economic Relations, visited the monument with his traveling companion, Sir Harold Harmsworth of London, England.

PROTECTION:

Two parties were apprehended filing a claim on the Otowi Section and notified it was illegal to file such a claim on that area.

BANDELIER (CONT.)

SIGNS:

New signs have been ordered through the headquarters office to replace those used as targets and damaged otherwise, also additional signs have been ordered for the road through the Jemez Mountains leading to Bland and the Jemez Pueblo.

N. P. S. VISITORS

Park Service visitors this month were: H. H. Cornell, Santa Fe; Erik K. Reed, Santa Fe; Jim Hamilton, assistant engineer; A. E. Underhill, road oil foreman; Dr. Charles N. Gould, regional geologist; H. H. Hawkins, assistant geologist; Milton J. McCollm, acting regional director; Mrs. Iva Petty, regional office; Mr. and Mrs. Jack Eglinton, Santa Fe, (Mr. Eglinton was here establishing grades for the Contractor grading the utility area); Miss Reta McCoy, C.C.C. procurement office; Charles A. Richey, landscape architect, Santa Fe; W. W. Yeager, acting forester regional office.

*****SWM*****

BANDELIER CCC

By H. B. Chace, project superintendent,
Box 669,
Santa Fe, New Mexico.

Final completion is being withheld on the Lobby and Sales Room building pending decision of the heating situation. With this exception, this unit of the Hotel Development is 100 percent complete.

During the month, all plastering was completed on the Operator's Residence, final grinding of flagstone flooring was done, doors and windows installed, and the hardwood flooring in the living room laid. At the present time, a crew is painting and staining this unit.

All plumbing fixtures have been installed in the Cabin "A" group; and this building is now ready for plastering and the installation of doors and windows.

Rough plumbing has been installed, roof construction completed, and all flagstone flooring laid ready for final grinding on Cabin "B" group of the Hotel Development. This building is now ready for the installation of the plumbing fixtures and plastering.

Construction was begun on the Comfort Station (Unit No. 15) of the Hotel Development during the month. Excavation work has been

BANDELIER CCC (CONT.)

completed, footings laid, and all wall construction of the basement has been brought up to floor height of the main rooms.

The carpenter crew has installed all door and window openings in the Operator's Residence and prepared the doors for the Cabin "B" group ready for installation. In connection with the work on the various units of the Hotel Development, a part of the crew has been busy all month preparing furniture for installation in the dining room and in the Lobby and Sales Room units.

During the entire month, preparation of building stone has been going forward in the rock quarry to be used in wall and floor construction.

*****SWM*****

BANDELIER FORESTRY

By James T. Fulton,
Forestry Foreman, Box 669,
Santa Fe, New Mexico.

This month has been extremely wet; therefore, danger of forest fires was at a minimum. As a result, the fire guards and fire crews have been discontinued and our roadside-point lookout is no longer manned. In fact, our lookout shelter has been torn down, the appurtenances have all been removed, and the telephone wire rolled up. All in all, our roadside lookout point proved to be a distinct advantage to our fire organization. All the fires this season were located by this lookout before the Dome lookout had seen them. I feel that next year it will be a good idea to again use this point.

*****SWM*****

NATURAL BRIDGES

By Zeke Johnson, custodian,
Blanding, Utah.

Visitors this month 122; travel year 1938, 741.

There have been 741 people register at camp for the fiscal year

NATURAL BRIDGES (CONT.)

and, the weather being ideal, I estimate there will be about 25 during the remaining six days of September. I am sure that there have been at least 50 people during the year that failed to register. This month, to date, there have been 122 visitors although we have had 11 days of rain or so much mud that no one came. I have contacted every visitor this month and have never enjoyed myself more for I have had some very interesting and wonderful visitors to talk with.

Engineer Diehl came in and we went over the proposed part of the long trail to be made or repaired, and I put one man to work. I have been able to help him some, and we have made a real start on the project, and will carry it on to completion within the time that remains this fall. We are hauling red shale to surface all that we have finished. This will soon pack and make a real hard-surfaced path.

Among the interesting visitors this month were Dr. J. W. Williams, the 85 year old veteran from Moab and the great booster for Arches National Monument; C. H. Claudia, leader in Masonry from Washington, D. C.; Dr. D. D. Stockman from Salt Lake City, another leader; John M. Dunlap from Salt Lake, and H. R. Waldo from Salt Lake. These last four were here to show the representative from Washington the scenic wonders of the West. They stayed at my camp two nights.

I didn't get away from camp until late last night (Sunday), and there were 24 visitors still there when I left, but I saw them in town after dark. I will be on my way back in about an hour. If visitors will stay away, I can work on the trail. The weather is ideal, now, and roads and trails in good condition. Moisture was never better and there are lots of beautiful fall flowers blooming. We have never been bothered with flies before at camp, but now they are a real pest. I'll go out this time prepared to make war on them. I am now rarein' to go for another month.

*****SWIM*****

EL MORRO

By Robert R. Budlong, custodian,
Ranch, New Mexico.

Visitors this month, 442; travel year 1938, 3,208.

September brought a decided dropping off in visitor attendance at this National monument, and also brought the first real rains I have seen here in nearly two years. Toward the middle of the month, several days passed without a single visitor, and the custodian

EL MORRO (CONT.)

appreciated the respite, a touch of flu having him down, 'though he remained on the job.

VISITORS:

Our total travel this month was 442 persons. All were contacted. The usual visitor statistical table at the end of the monthly report will show guided field trips, museum trips, and picnics. Not shown were 11 trail trips unattended, total persons 31, time 795 minutes, average trip 72.27 minutes.

This month closes the travel year. What a year it has been! Our last year's travel totaled 2,298 persons. This year it is over 3,200 persons, an increase of 40 percent over last year's travel. We need more personnel, and need it greatly. With only a slight increase in visitor attendance the coming year, our service is going to suffer if we can not get one extra man here during the rush season.

WEATHER:

The oaks are changing to shades of yellow, brown, and garnet; light to heavy frosts have struck the nearby lowlands, farmers are harvesting their crops, and the tang of autumn is in the air. Minimum temperature during the month was 37 degrees, maximum 81 degrees. Rain fell during the month to a total depth of 2.34 inches. This was sufficient to put about four feet of water in the pool. The glutinous mass was diluted sufficiently to splash upon being poured to the ground, instead of striking with a dull thud. Frogs living on the banks were able to dive in head-foremost without suffering concussions. With the coming of cool weather the use of the gasoline stove has been practically discontinued, and the fragrance of juniper and pinyon pine smoke helps us to realize that winter is approaching.

QUARTERS:

Mr. Ripley please copy: We are to get additional space in our living quarters! Unbelievable but true. The structure is so small that visitors often ask somewhat embarrassing questions relative to it, not infrequently mistaking it for a telephone booth or some similar structure. But we are to start construction of an additional room sometime around the first of October, just as soon as local labor becomes available after the harvesting. The room will be built of discarded railroad ties, and will have a roof and a floor. If funds permit, it may even have a door and perhaps a window, though it is quite possible that in my enthusiasm I am being overly optimistic. The custodian moved tons of earth, excavating in the hillside for the foundations. We will possibly lower the floor below the level of that in the present shed, in order that the custodian may stand erect in the back part of the new room--something quite impossible in the present structure. If all goes well

EL MORRO (CONT.)

we may even have sufficient headroom for the custodian to wear his hat in the house on formal occasions, or during the cold weather. The entire personnel at this monument is overjoyed at the prospect of having space in which to move about. The present shack is being made ready for winter. New stovepipe has been put in place, minor roof repairs made, earth has been banked against the log walls outside to keep out drafts, electric light wires have been restrung ready for connections to the new room, quantities of rock have been hauled ready for construction of foundations, and a bar ace constructed north of the present structure for the new path from the shack to the pool. Earth over the root cellar (constructed last year) has been moved, drainage improved, and the grounds surrounding the cabin cleared of Russian thistles.

WILDLIFE:

The quail liberated last spring have suddenly reappeared, not within our boundaries, but some miles distant. One covey of over 20 was seen just a few days ago, and other coveys undoubtedly will be found from time to time. We have the fullest cooperation of the neighboring farmers, and it is hoped that the quail will survive the winter. Local residents having promised to feed the quail should we have a severe winter.

Domestic cats continue to be a serious problem. The critters are worse than guinea pigs, apparently hatching out a new brood every few days, judging from the number of kitten tracks to be found. During the month two of the cats grew careless and allowed themselves to remain in sight just a few second too long. They have gone where the woodbine twineth.

SIGNS:

Enamelled steel signs were received some long time ago at the height of the visitor season, but it was impossible to leave the monument long enough to get the signs put in place. One very rainy day the custodian managed to place one of the signs at a crossroads where a sign was badly needed, but the remainder will have to await the time of lighter visitor travel and almost impassable roads. Placing one sign is about two hours' work, malpai rock often being encountered. It is necessary to plant the double steel standards three feet deep; it is also necessary to rivet the bolts holding the signs to the standards, for Navajos find the bolts handy for holding wagons and cars together. Some of the wooden signs within the monument boundaries have been repainted.

EDUCATION:

Still classed as unofficial and experimental, numerous illustrated lectures have been held during the month, using Kodachrome slides. There is a constant demand from local people for more of these lectures, and just as soon as we can get caught up on pending matters and the new

EL MORRO (CONT.)

room is constructed, we hope to hold regular lectures, either here at the rock or at nearby schoolhouses. It is hoped that with more space in the present shack and with more personnel in the future, these illustrated lectures will become a regular service. Boss, the next thing we are going to need here is a motion-picture projector for 16 mm. film, and some of the Interior Department's films on other national parks and monuments; films showing introduction of game and results of game protection, benefits of reforestation, soil conservation, etc. I'm just serving a little warning in advance. While much of the material should be of national parks and monuments, it is desired to have material for educational work for local, rather than just for visitor, benefit. I think we can accomplish much here through the medium of slides and motion pictures of this sort.

MORE ABOUT VISITORS:

During the month, Mr. and Mrs. Jack Diehl dropped in for a short visit which was greatly enjoyed by us and friends who were visiting us. Dr. Gould and Dr. McDougal also paid us a fine visit during the month, and we hiked over the rock and around the inscriptions. Mr. Melville, of San Francisco, one of our last year's visitors, and a member of the SW Monuments family, is leaving in the morning, after a two-days' stay. He brought a friend with him, and their brief visit has been greatly enjoyed. You should have been here, Boss--we held two long sessions with Mr. Melville's Kodachrome slides and my own--something over 500 slides altogether. Mr. Melville also showed eight or ten reels of motion pictures, and we sat up until the wee, small hours, running some of the slides more than once. He had some mighty fine things to say of Bill Leicht, Zeke Johnson, and the personnel of Aztec and Chaco.

HISTORICAL:

Today the custodian ventured away from the Rock for a few hours for the first time in many moons, accompanied by Mr. Melville and his friend Mr. Vargas, and we went hunting for a rumored inscription rock between here and the Zuni range. We found one place that had a water pool at the base of a mesa, with some recent names carved nearby, but no Spanish inscriptions could be found. These rumors of another inscription rock, with old inscriptions on it, keep coming in. Possibly we did not find the right spot, for one of our informants reported that he had found a water-hole about the size of the one at El Morro, and perhaps somewhat deeper; that it received drainage from a larger area, and was far superior as a site for a natural or artificial dam for the retention of rain water. Our brief inspection of the new one, and a comparison with the features of one at El Morro, proved conclusively that ours at El Morro is a dam site better than the one we discovered today, and it is most doubtful if the new one was ever very important as a watering-place. However, it is not unlikely that other similar natural reservoirs exist, and we will continue our efforts to

EL MORRO (CONT.)

determine whether or not early Spanish inscriptions are to found at such places.

GENERAL:

With the coming of the rains and the colder weather, rock falls are growing more frequent. No damage has resulted to known inscriptions at this writing. We are much pleased to learn that our proposal to make molds of the major Spanish inscriptions has been approved, and we are anxiously awaiting a sample of the latex molding material for preliminary experiments.

With the approach of winter, our preparations for a severe one go on slowly. We recall all too vividly our first winter here, when we were snowed-in, and had to live on fresh air and very little flour, with the exception once a week of a bit of extravagance when we shared one bean for dessert, and we are taking no chances in being caught without sufficient food in the event we get a hard winter. We have stocked several hundred cans of fruit juices and locally-grown vegetables, and have ordered large quantities of fresh vegetables such as cabbage, carrots, beets, and potatoes. The cellar is beginning to look fairly well stocked for winter. Last winter the custodian bought a quarter of beef and hung it in a small temporary meathouse, but warm weather came along and much of the meat was spoiled. Now he has placed an advance order for a half beef, intending to have the meat canned, but complications have arisen that promise to be serious. It appears that no one else has placed an order for the remaining half of the beef, and it seems highly probable that when the time comes for us to begin canning our half, the other half may offer strenuous objections.

Word reaches me at this point that the railroad ties and lumber will be delivered the end of the present week. Better come up in a few weeks, Boss, and we'll hold a real house-warming.

*****SMT*****

EL MORRO PUBLIC LIBRARY

By Betty Budlong

A little over two months ago, the job of organizing a library of good reading material for the isolated community of El Morro was begun by us here at the monument.

It was a deplorable fact that the literature to be found in most of our neighbors' homes consisted of a few old books which had been read and re-read, and magazines of the pulp type which were passed from one family to another until they fell to pieces. In one instance, a mother was found to be reading blood-curdling detective stories aloud to her little sons, aged eight and ten!

EL MORRO PUBLIC LIBRARY (CONT.)

When it was suggested that we start a library, the eagerness and enthusiasm displayed by everyone was almost pathetic.

The "Call from the Wilderness" which the Boss very kindly inserted in the July Report reaped some fine contributions, and I want to thank again the Boss, Hugh Miller, Matt Dodge, Homer Hastings, Horace Griffen of the Phoenix Gazette, and Mr. C. H. Hanington, President of the Colorado Museum of Natural History, all of whom sent me books and thus paved the way for a splendid permanent library.

Through the New Mexico State Library Extension Service, we have acquired some 80 books which may be kept over a three month period. When these are returned to Santa Fe, a new batch will be sent us. Miss Helen Dorman, director of the Service, has been most kind and helpful in selecting books for me and I am deeply grateful to her for making the project such a rich and worthwhile one.

At the present time, we have 129 books on hand and, since the middle of July when the library opened officially, 108 books have been read. Every Tuesday afternoon I load the books into the car and drive to the little El Morro store and check new ones out and old ones in; several times during the week I have calls for them here at the cabin. People come from 25 to 30 miles away to stock up on their reading material.

This is the busiest time of year for these hard working folk, and when the beans are harvested and threshed, the corn stacked, and the winter's snows settle deeply over the countryside, I can visualize real contentment as they sit in their warm cabins, whiling away the long evenings with all the books they can possibly read!

*****SWM*****

CHACO CANYON

By L. T. McKinney, custodian,
Chaco Canyon, New Mexico.

Visitors this month, 875; travel year 1938, 6,271.

Anyone that considers the Chaco just an old dry wash should take a look at her now since a few summer rains. The grass, shrubs, and flowers have certainly painted another picture of old Chaco. Everywhere you look you can see hundreds of four o'clocks, sunflowers, and mallows and thousands of wild asters. Also the greasewood, saltbush, lycium and squawberry are helping along with the beautiful grasses to give the flowers a wonderful background. And of course the old canyon walls with their many different tints of sandstone help to make the

CHACO (CONT.)

Chaco look what she really is. Anyway, Boss, she looks good to me after seeing some of the supposed-to-be bright spots of the Southwest.

VISITORS:

There were 875 visitors through the monument this month, coming in 282 vehicles, from 27 states, and three foreign countries; Cuba, Holland, and Switzerland.

WEATHER:

Maximum93

Minimum42

There were six cloudy, 11 partly cloudy, and 13 clear days during the month. Within the past thirty days 1.96 inches of precipitation fell.

SPECIAL VISITORS:

There were several visitors at the monument this month that no doubt should come under this heading. But as part of them didn't register, some registered over at the school, and some registered here, I will wait until I can get together with Dr. Brand and get all the names and submit them in a later report. Most of them were here during the Archeological Conference.

NATIONAL PARK SERVICE OFFICIALS:

Mr. and Mrs. Hugh M. Miller, Charles A. Richey, Dale S. King, H. A. Montgomery, Dr. Arthur B. Kelly, Thomas C. Miller, George Shelly, Tommy Onstott, and James Spuhler were monument visitors during the month.

UNIVERSITY OF NEW MEXICO:

The university closed its field school for the summer on the evening of August 27. Everyone certainly enjoyed several softball, volleyball, horseshoe and other games while they were in the canyon this summer.

*****SWM*****

MOBILE UNIT

By Gordon Vivian, archeology
foreman, Chaco Canyon, N. M.

The activities of the Mobile Unit for this month have been confined mainly to three jobs: the waterproofing at Aztec, and wall support and capping here at Bonito. As extra-curricular activities, the boys and I have been making medicine. The stomach aches and wandering pains I've

MOBILE UNIT (CONT.)

sent to the hospital at Crowmpoint, keeping the cases of "noises-in-his-ear-like-a-bug-scratching" here at camp to dope. It is strange what a hold this idea of having medicine in the ear has on the population here. Then there apparently have been a lot of minor ailments in the men's families and in those of their relatives which the small-time medicine men, who are also among our best stone masons, have taken considerable time off to cure. There is never any CHOICE as to whether it is best to keep on working or to sing over an ailing friend.

Despite these digressions into medicine on the part of all concerned, we got in 356 man days divided among the jobs as follows: Waterproofing rooms, Aztec, 96; Support walls, Bonito, 91; Repair capping, Bonito, 132; Patch walls, Bonito, 32; and Pit Toilets, 5. All camp and equipment maintenance is included in the above amounts. We have been trying to get a little wood ahead for winter. A few weeks ago we had some bad days and Custodian Mac and I about half decided that there would be two or three months this winter when it would be tough sledging to get out after wood. Now it has warmed up again and quite possibly we won't be snowbound or frostbitten.

Four of the contemplated ten rooms to be done at Aztec are now completely finished with the application of the final layer of the built up roofing and the capping of the repaired room walls.

Support work here at Bonito has been confined to three heavy jobs on the east side of the ruin, all entailing extensive scaffolding and a long haul of materials. Most of these rooms on the east side cannot be reached from the outside due to the high exterior wall and the lack of ground floor doorways. All materials for rooms 258 and 259 are brought up on a ramp to the top of the first floor over on the east plaza and then wheelbarrowed about 125 feet across trestles and hoisted to the level of work.

Room 242--5 cu. yds. concrete buttress; 6 sq. yds. capping over new work.

Room 258--steel beam placed under south wall, second story

2 cu. yds. concrete buttress on east wall.

Room 259--2 sq. yds. repair to base 2nd story; 2 cu. yds. concrete;

1 reinforced concrete lintel over doorway, 3rd story.

Total-----9 yds. concrete, 1 steel beam, 1 concrete lintel,

2 yds. wall repair; 91 man days.

Reported last month was the preliminary work in 258 of building up portions of the east and west walls with concrete cores to support the ends of the beam to be placed under the overhanging second story portion of the south wall. These plates were allowed to harden till the middle of this month. Then the wall was blocked up and two railroad rails slipped in place under it. What stonework had fallen prior to repair was replaced and steel wedges were driven in between the bottom of the wall and the rails so as to take up the weight of the north side of the wall.

MOBILE UNIT (CONT.)

This south wall crosses the second story of the east wall as a unit and was not tied in to it, apparently having been completed before the east wall was built. Where it crosses, a large block of the east wall had fallen to first story level. A section of this fallen wall was rebuilt in concrete to provide a buttress against the leaning top of the south wall.

In room 242, the five yards of core and the capping were laid to complete this job reported as started last month. This is one of those rooms on the east side where the wall breaks abruptly with a drop of some 20 feet, the bottom of the break being just above the first story level. Here we have built up a concealed concrete "L", the bottom of the "L" resting on the solid top of the first story and the upright running up against the face of the broken wall. The body of the "L" is set in concrete and the facing set in stabilized mortar. This stabilized mortar was used on the surface only to mask the concrete as it is much less noticeable and is not subject to erosion as would be such an exposed face of ordinary adobe mortar.

In 259 we are doing essentially the same thing where there is a slightly overhanging break in the wall and farther back in the next room a vertical crack.

Under the capping job, we have removed the old concrete from rooms 178 and 179 and are completing at once all of the capping on these rooms. The extension of the flagstone capping set in concrete and to be used as a portion of the trail has been completed around the south and east side of Kiva E, so that now all of the trail which goes over any walls in the east side of the ruin is set in concrete. Also in progress is the capping of the remainder of Kiva E in the standard stabilized mortar. Adjacent to E on the north, Kiva F and the room walls which surround it on the east are also being capped. We hope that this entire area centering about these two kivas will soon be entirely completed as one unit. It was this area that was the center of the old concrete capping which covered the walls and the large kiva corners as well. The kiva walls have been repaired, the trails constructed, and the final step of capping is now under way.

The two pit toilets were painted early this month and are now 100 percent complete.

Wall patching on the east side of Kivas V and W was completed and carried on to the low wall which separates these two units. Also carried on under patching, was the finishing of these walls with stabilized capping. Also done was the application of the first coating to the four square yards of painted plaster in room 281.

Not under any specific heading was one man day spent applying the final coating of NPSX solution to rooms 62, 238, 285; a total of 69 square yards that have been given three coatings.

ARCHES

By Harry Reed, park ranger,
Moab, Utah.

Visitors this month, 200; travel year 1938, 1,448.

From August 28 until September 10, heavy rains fell daily. The fill in Courthouse Wash was completely washed away. Other than this little damage was done to the temporary road to the monument. The crossing in Courthouse has been repaired to some extent and the road in general is in fair condition. The heavy rain packed the sandy places and they have remained so up to the present.

VISITORS:

Although an accurate check could not be made this month, I have made a sufficient number of contacts to be able to make a fair estimate and I find that the number of visitors compare favorably with August. I believe that approximately 200 persons visited the monument during September.

PARK SERVICE OFFICIALS:

Hugh and Christine Miller from headquarters and Charles Richey from the Santa Fe office were visitors to the monument on September 13 and 14. A hike was made over the route of the proposed entrance road to the Courthouse Towers. It is no short drive from Coolidge or Santa Fe to the Arches even in this age of speed, and I realize that we will have to be content with an occasional visit, but I hope it will be necessary to make official trips more often in the future.

MISCELLANEOUS:

I am in receipt of a letter from the Federal Writers' Project, State Art Center, Salt Lake City, Utah, requesting information about practically every scenic point from Crescent Junction south to the Arizona line. This information is to be used in a travelers guide which will be published by the government as a WPA project. In addition to Arches, Natural Bridges, and Hovenweep National Monuments, all other points of interest are specified. This is a pretty big assignment and I may have to send out and "SCS" to Zeke for information on the Bridges and to headquarters for information on Hovenweep. I am to be listed as the person to whom one should write for information about this section of the country so it looks like I will be getting my share of letter writing next season.

*****SWM*****

HEADQUARTERS

BRANCH OF MAINTENANCE

By F. E. Stonelocker,
general mechanic,
Coolidge, Arizona.

The work of the Maintenance Division was distributed during the month as follows:

- Four and one half days spent calcimining the bedroom, stripping celotex on bedroom walls and living room ceiling, and patching plaster in the Dodge residence;
 - Four and one half days installing conduit in the buildings of the new utility area;
 - Four days installing the water system to the utility area under construction;
 - One half day glazing window sash in the King quarters;
 - One and one fourth days spent moving the gas pump and storage tank to the oil house in the new utility area;
 - One day overhauling CCC Chevrolet #11197 for transfer to NM-5-A;
 - Two days spent instructing and supervising the plastering of the wash rack in the new oil house, this being a cement plastering job;
 - One day spent repairing the front axle assembly on Chevrolet NPS # 8114;
 - One and one fourth days installing and bolting in place the cabinets for the Naturalist Division's new panel truck--NP S #13920;
 - One day installing a new valve on urinal in men's comfort station and reglazing door, and installing new toilet seat in Old House ;
 - One day overhauling and grinding valves of Chevrolet NPS #13916.
- In addition, the usual servicing and minor repairs on equipment.

NEW EQUIPMENT RECEIVED:

Chevrolet 1 $\frac{1}{2}$ ton stake body truck--NPS #13921, for headquarters use; Ford V-8 3/4 ton pickup truck--NPS #13922, ordered for Tonto; 1 hacksaw frame , 1 Weston battery tester, 1 battery hydrometer, 6 - 2 $\frac{1}{2}$ gallon fire extinguishers, and 8- one quart fire extinguishers.

*****SWM*****

BRANCH OF EDUCATION

By Dale S. King, assistant
park naturalist,
Coolidge, Arizona.

On August 26 Park Naturalist King left headquarters for Chaco Canyon National Monument and official duties with the Mobile Unit for ruins stabilization through August 28. He took annual leave August 29. On August 30, in company with Associate Archeologist Arthur L. Kelly of the Washington Office, he started a trip of inspection which included Aztec Ruins National Monument; the excavations of Archeologist Earl Morris near Durango, Colorado; Mesa Verde National Park; Petrified Forest; Walnut Canyon; Sunset Crater; and Wupatki National Monuments; the Museum of Northern Arizona, at Flagstaff, Arizona; Montezuma Castle National Monument; proposed Tuzigoot National Monument; and Southwestern Monuments headquarters at Casa Grande National Monument. They arrived at the last-named point on September 4. On September 5, King took Dr. Kelly to Tucson for a conference with Dr. Emil Haury, head of the Department of Anthropology at the University of Arizona. On September 6 King drove Dr. Kelly from Tucson to Globe, Arizona, for a visit to the Gila Pueblo. King spent the remainder of the month in the office.

Junior Archeologist Charlie R. Steen spent the period from August 31 through September 4 accompanying Miss Harlean James, Secretary of the American Civic and Planning Association, on a trip through White Sands; the Billy-the-Kid museum; Chiricahua National Monument; Tombstone, Arizona; Tumacacori National Monument; Saguaro National Monument; San Xavier Mission; and headquarters. He worked until September 14 in the office and then took annual leave for the remainder of the month.

Junior Naturalist Natt N. Dodge spent the first 12 working days of the month on annual leave, returning to duty September 12. He spent the remainder of the month in the office.

With the term of duty of Ranger-historian Hill expiring on August 31, the portion of this report-month prior to that date was taken on annual leave.

Enrollee-mimeograph operator Scholz was on duty throughout the entire month.

Following is a resume' of the time devoted by members of the staff to various projects:

BRANCH OF EDUCATION (CONT.)

REPORT OF NATURALIST ACTIVITIES FOR SEPTEMBER

	King - Steen - Dodge - CCC			
	Days			
<u>General Office Overhead</u>				
Correspondence (112 letters)	6 1/2	1 3/4	1	0
Conferences and discussions				
With headquarters staff.	1 1/2	0	1/2	0
With visiting scientists	1/2	1/4	0	0
With NPS personnel	9 1/4	1/2	1/4	0
Library (file, issue publ. etc.)	1/4	0	0	0
Reports				
Compile and process monthly report .	1/2	4 3/4	5 3/4	12
Miscellaneous	1	0	0	0
Publicity				
Prepare info. and publ. material . .	0	0	1/4	1
Miscellaneous				
Clean-up, maintenance, and inventory	0	0	0	4
<u>Research and Education</u>				
Public Contact				
Office visitors (information)	1/4	0	1/2	0
Museums and Nature Trails				
Acquire, prepare, and catalogue spec.	0	3/4	1/4	0
Acquire equipment and supplies . . .	1 1/2	1 1/2	0	0
Planning	1/2	0	0	0
Arboretum plan, plant, maintenance .	0	0	0	1
Visual Education				
Slide and movie library	0	0	1 1/4	0
File prints and negs.	0	0	1/2	0
Taking and processing photos	1/2	0	1 3/4	1
Miscellaneous				
Bird banding and observation records	0	0	1/4	0
Ruins stabil. proj. adm.	4	0	0	0
S.W.M. Association	1/2	0	0	0
<u>Field Work</u>				
Field trips.	0	5	0	0
<u>Leave</u>				
Annual.	1 1/2	8	12	0
Sick	0	0	0	0
<hr/>				
TOTAL FOR THE MONTH	27 1/2	24 1/4	24 1/4	19

*****SWM*****

BRANCH OF EDUCATION (CONT.)

VISITORS

Associate Wildlife Technician McDougall; James H. Wells, Farm Agent, Indian Service, Sacaton, Arizona; Padre Victor Stoner; Dr. A. R. Kelly; H. L. Stahnke, research worker on scorpions and other poisonous insects and related groups of the Sonoran Desert; Ranger Ted Cronyn of Tumacacori National Monument; Temporary Rangers Philp, Peterson, and Richert visited headquarters.

SOUTHWESTERN MONUMENTS LOAN LIBRARY

A considerable number of new books were ordered for the Loan Library and various national monument libraries. Extra copies which have been accumulating for some time were sent to monument libraries. Received during the month were 24 books, 48 periodicals, and 18 pamphlets.

MUSEUMS

Western Museum Laboratories very helpfully aided us in cooperation with the U. S. Indian Service by preparing a set of aluminum labels for the many species of plants and trees which are growing on the grounds of the Phoenix Indian School.

The naturalist office continued to aid Dr. A. C. Whitford, research chemist of Alfred, New York, who is making detailed identification of vegetal fibres of the textiles in the Montezuma Castle National Monument collection.

Arrangements were made with Professor J. J. Thornber, of the University of Arizona, to identify herbarium specimens which are collected by Southwestern Monuments personnel. Botanist Jack Whitehead, who formerly did our identifications, has moved to California and is no longer near an adequate herbarium to make comparisons.

A memorandum was prepared for the Director, stating the need for a seismograph at Sunset Crater National Monument. This instrument could be operated in conjunction with the Museum of Northern Arizona and would provide exceptionally interesting scientific data on the San Francisco Mountains volcanic field.

Not much progress was made on equipping the naturalist truck, for the general mechanic was unable to make the fittings for the removable cases, due to several other emergency jobs.

The repair of prehistoric pottery in the Casa Grande study collection progressed quite rapidly. Mrs. Elmer C. Gipe has almost finished the rough plaster work on the whole collection. When this phase of the preparation is complete, our ceramic objects will be in much safer condition for the somewhat haphazard storage facilities.

BRANCH OF EDUCATION (CONT.)

Dimensions for the orientation station on Massai Point at Chiricahua National Monument were roughly worked out and a tentative ground plan was submitted to the Branch of Plans and Designs in the Region Three office so that a plan for the structure can be drawn up.

ACCESSIONS FOR SEPTEMBER

18 dozen Kodaslide cover glasses
300 Kodaslide masks
100 Kodaslide metal bindings.
2 Kodaslide sequence file boxes
1 Kodaslide projector with carrying case
5 pounds Moulage casting compound.
Dust shot, #7 and #9 shot gun shells for collecting gun.
1,000 reinforced book pockets for Southwestern Monuments Library.
These were lettered by the Western Museum Laboratories.
2 dozen metal book ends.
16 prints of Rio Grande pueblos for the Bandelier museum.
These were received from the Bureau of American Ethnology.
162 prints and 56 negatives from the Western Museum Laboratories.
1 gallon of clear Latex Molding Compound No. 10099.

CASA GRANDE SIDE CAMP EDUCATIONAL PROGRAM

Plans are being made for the full schedule of winter classes which will begin shortly.

VISUAL EDUCATION:

While returning from Colorado, and still on annual leave status, Junior Naturalist Dodge visited Bandelier and White Sands National Monuments, completing 16 m.m. movie reels of National Park Service development at those areas.

The movie activities of Dodge have produced at the present time three reels of Kodachrome film, "The Desert", "Glimpses of the Southwestern Monuments", and "Indians". These reels average about 400 feet each. It is planned to insert skeleton captioning, and to make these reels available for headquarters and field lectures.

Kodachrome movie film has also been sent to Arches and Wupatki National Monuments, and a rather detailed series of sequences are being built up on those two areas.

The building of a Kodaslide collection for headquarters has now started. All materials are on hand for the making of slides, and the first dozen slides are prepared. It is expected that this collection will run into the hundreds within a year.

BRANCH OF EDUCATION (CONT)

RUINS STABILIZATION

Experiments were made in the office with the rubber latex molding compound which we hope to use in casting the inscriptions at El Morro National Monument. Experiments indicate that the preparation is entirely satisfactory, and it is planned to ship a supply of the compound to Custodian Budlong at El Morro in the near future. A member of the Naturalist staff will aid Custodian Budlong in the initial stages of the project, for some of the work will require two men. It is expected that Budlong can then carry on the casting during the autumn months.

A justification for the ruins stabilization project under CCC at Walnut Canyon National Monument was prepared.

Record sheets for the work done by the Indian CCC Mobile Unit for ruins stabilization at Chaco Canyon were sent to the Western Museum Laboratories, for covering. When the reports are covered, they will be distributed to the various National Park Service and scientific offices for final deposit.

SOUTHWESTERN MONUMENTS ASSOCIATION

The first Association booklet, which has been in readiness for typing for three months, is still unfinished, for typists are too overburdened with official night work to allot much time to this unofficial booklet.

*****SWM*****

COMPARATIVE VISITOR STATISTICS

By The Boss

AVERAGE TRIP TIME

The average trip time this month is interesting from two angles.

First: Casa Grande is up again; not very much it is true, and for some reason he can't figure, Don Egernmayer slipped off both in the ruins and the museum from his August averages, but the others followed the swing of the averages and went up. This means that the average guide time was up in March, down in April, up in May, down in June, up in July, down in August, and is up again in September. Seven months it has been swinging back and forth as steadily as a pendulum. I doubt if the boys could have made it do that if they had tried. Under the law of chances, it could hardly run that long once in a hundred years. Yet what reason can you think of for the public to alternately slow down

COMPARATIVE VISITOR STATISTICS (CONT.)

and speed up over seven consecutive months?

Second: Aztec average trip time fell from August to September, whereas Casa Grande trip time rose. These two monuments have very similar conditions; archaeological monuments, both with museums, field trips measuring about the same in length, etc., so that one makes a good check for the other. The reason for the rise in trip time at Casa Grande, whatever it may be, seems not to have operated at Aztec.

at AZTEC.									
AZTEC	Ruins			Museum			Total		
	Sept.	Aug.		Sept.	Aug.		Sept.	Aug.	
Miller	43.7	52.9		26.3	30.2		70.0	83.1	
Brewer	41.8	44.1		26.8	28.4		68.6	72.5	
Peterson	47.0	47.5		23.6	26.6		70.6	74.1	
NYA	35.2	36.7		20.8	24.3		56.0	61.1	
Average	41.2	46.3		24.3	27.2		65.5	73.5	
CASA GRANDE	Sept.	Aug.	July	Sept.	Aug.	July	Sept.	Aug.	July
Rodgers	35.8	33.0	36.6	22.8	20.3	25.2	58.6	53.3	59.8
Coyle	35.2	33.3	38.3	23.0	21.2	23.9	58.2	54.5	62.2
Sheffield	29.6	27.9		18.8	18.6		48.4	46.5	
Egermayer	48.8	49.8	51.1	27.2	33.2	28.7	76.0	83.0	79.8
Bicknell	46.6	43.0	51.0	46.9	36.5	31.8	93.5	79.5	82.8
AVERAGE	36.1	35.1	39.1	23.0	22.8	23.8	59.1	57.9	67.8

GUIDE DATA

Aztec carried a heavier load last month than Casa Grande, the average half trips per guide per day being 7.1, the same as the month before, whereas Casa Grande had 5.4, an increase over the month before when they had 4.8. The heaviest individual load was carried by Peterson at Aztec who, in five days worked, averaged 10 half-trips per day, and he didn't rush his parties to do it as is shown by his also getting the longest average trip time of 70.6 minutes. That means that for 350 minutes or, let us say, six hours per day for those five days, Peterson was talking and answering questions almost steadily. Your average platform speaker wears down under the nervous tension of talking for 45 minutes; consider the nervous tension as well as the physical strain of standing on your feet and talking for six hours. And we will be willing to wager that at least one pleasant lady said each day: "Don't you get terribly lonesome out here?"

Brewer carried by far the heaviest load of trips for the month and made the highest number of contacts; partly of course, as the tables show, because he worked the greatest number of days. His average of eight half-trips per day, however, means that he did a lot of talking.

At Casa Grande, Sheffield, who last month matched Rodgers at 6.3 half trips per day, this month leads the field with 6.9. He also worked

GUIDE DATA (CONT.)

the greatest number of days and handled the greatest number of parties, as well as making the greatest number of contacts. He is still low on his trip time, due, no doubt, to the fact that he is a new man and still learning the work.

AZTEC		No. Parties		Minutes		No. Visitors		1/2 Trips per day
Days worked		Ruins	Mus.	Ruins	Mus.	Ruins	Mus.	
Miller	23	44	80	1925	2105	441	748	5.3
Brewer	27	142	75	5945	2010	1291	594	3.0
Peterson	5	27	23	1270	545	412	314	10.0
NYA	22	60	95	2115	1935	395	691	7.0
Total Sept	77	273	273	11255	6645	2569	2347	7.1
August	88	306	323	14200	3739	3274	3019	7.1

CASA GRANDE		No. Parties		Minutes		No. Visitors		1/2 Trips
Days worked		Ruins	Mus.	Ruins	Mus.	Ruins	Mus.	
Rodgers	21	82	53	2936	1211	440	348	6.4
Coyle	14	52	37	1828	852	295	267	6.4
Sheffield	23	88	72	2606	1357	466	394	6.9
Egermayer	22	42	35	2054	953	226	191	3.5
Bicknell	8	10	7	466	328	71	49	2.1
Total Sept.	88	274	204	9390	4701	1498	1209	5.4
August	99	286	199	10039	4543	1412	1161	4.8
July	90	237	184	9279	4333	1185	1261	4.6
June	94	256	207	9154	4436	1404	1171	4.9
May	100	319	232	11757	5353	22232	1983	5.5
April	113	357	242	12638	5201	3168	2716	5.3
March	94	335	199	12159	4202	2995	2330	5.6
February	102	462	338	15573	6326	3953	3004	7.8

VISITOR RECORDS FOR SEPTEMBER

Compiled By The Boss

As nearly as we could gather the figures, we had 36,838 visitors during the month of September; about 5,000 more than we had for September last year, and about 15,000 less than we had during the previous month. This total will take another big drop next month and then we will be in our winter season with around 17,000 visitors per month.

Of this 36,838 visitors last month, we were able to make only 16,968 educational contacts. Of the remaining 26,180 persons, nearly 23,000 went to monuments where we had no personnel to meet them. The remaining 3,000 arrived at monuments where we were unable to care for them due to men off duty, on annual leave, temporarily overworked, or any one of several other reasons. We need five permanent men and three more temporaries pretty badly.

VISITOR STATISTICS FOR SEPTEMBER, 1936

SOUTHWESTERN MONUMENTS

MONUMENT	Employees		FIELD TRIPS				MUSEUM TALKS				Unattended	Total Informational Contact	Total Travel	Per cent Contact
	Per.	Temp.	No.	Att'd.	Time	Av. Att'd Time	No.	Att'd	Time	Av. Att'd Time				
Arches	1	--	--	--	--	--	--	--	--	--	200	--	200	
Aztec Ruins	2	$\frac{1}{2}$	273	2569	11255	9.4 41.2	273	2347	6645	8.5 24.3	225	4916	2752	178
Bandelier	2	5	131	770	14130	5.1 10.1	39	189	670	4.8 17.1	1036	959	1810	
Canyon de Chelly	1	2	51	170	5545	3.3 10.7	53	140	1065	2.6 20.0	98	310	268	
Capulin Mountain	1	--	--	--	--	--	--	--	--	--	6500	--	6500	
Casa Grande	2	3000	273	1099	9837	5.4 36.1	204	1209	4705	6.0 23.0	390	2707	1889	143
Chaco Canyon	1	1	68	278	4600	4.0 67.6	68	272	1715	4.0 25.2	537	550	875	
Chiricahua	1	3	134	519	7940	4.1 64.0	--	--	--	--	57	519	576	
El Morro	1	--	67	315	4005	5.1 68.7	8	24	1145	3.0 143.	73	369	442	
Gila Cliff Dwelling	--	--	--	--	--	--	--	--	--	--	10	--	10	
Gran Quivira	1	--	46	172	2644	5.7 57.4	2	12	105	6.0 52.5	---	184	172	
Hovenweep	--	$\frac{1}{2}$	--	--	--	--	--	--	--	--	8	--	8	
Montezuma Castle	2	--	282	795	7905	2.8 28.0	133	405	1450	3.0 10.9	264	1200	1155	104
Natural Bridges	1	--	42	122	4870	3.0 116.	--	--	--	--	6	116	122	
Navajo	1	--	20	59	4809	3.0 160.	--	--	--	--	10	49	59	
Organ Pipe	--	--	--	--	--	--	--	--	--	--	350	--	350	
Pipe Spring	1	--	37	117	1165	3.1 31.4	--	--	--	--	186	117	303	
Rainbow Bridge	--	--	--	--	--	--	--	--	--	--	20	--	20	
Saguaro	--	--	--	--	--	--	--	--	--	--	350	--	350	
Sunset Crater	--	--	--	--	--	--	--	--	--	--	823	--	823	
Tonto	--	1	49	125	2495	2.9 59.1	73	218	1185	2.9 16.2	22	343	240	143
Tumacacori	2	--	217	848	4400	3.9 20.2	--	--	--	--	144	848	992	
Walnut Canyon	1	400	544	1703	16348	3.1 30.0	323	980	4606	3.0 14.2		2683	1913	
White Sands	2	--	--	--	--	--	--	--	--	--	14446	--	14446	
Wupatki	1	--	54	198	2810	3.6 51.6	--	--	--	--	355	198	553	
Yucca House	--	--	--	--	--	--	--	--	--	--	10	--	10	
TOTAL	24	20	2272	10288	105701	4.5 46.5	1176	5796	23287	4.9 19.8	26180	16068	36838	43.5
Last Month	24	16	2155	12422	118652	5.7 55.0	1488	8340	31767	5.6 21.3	28285	28981	52156	55.5
Last Year	19	7	1600	9071	77684	5.6 48.5	1019	5365	18896	5.2 18.5	18821	14436	29488	48.9

VISITOR RECORDS FOR SEPTEMBER (CONT.)

In our contact work, we gave 2,272 field trips to 10,288 persons, the average party being 4.5 persons and the average time for each trip being 46.5 minutes. The average trip was off two minutes from last seasonal fall in field trip time between August and September, probably due to the summer tourist going off the road with the school children, thus increasing the percentage of visitors who are only visiting us incidentally while on some business trip and are more inclined to hurry.

We gave 1,176 museum or educational talks to 5,796 persons, the average party being 4.9 persons and the average time being 19.8 minutes. This average time is down from the previous month, when it was 21.3 minutes, and up over last year when it was 18.5 minutes.

We gave 600 more field trips this year than we gave last and about 150 more museum talks. One reason for this is that we had better service at Walnut Canyon where we have four CCC guides who recently went on duty.

ANNUAL VISITOR CONTACT SUMMARY

By The Boss

Our travel year ended September 30, and, upon casting up our totals, we find that we have had a pretty busy year in our educational work.

We made a total of 173,107 informational contacts with our personnel as against 153,912 such contacts in the preceeding year. This seems like a lot of work and a lot of visitors until we stop to consider that we had a total of 319,164 visitors and made only a 54.2 percent contact on them. This is due to the fact that we are yet undermanned and visitors are going to monuments where we have no personnel to take care of them.

Our personnel gave 29,769 trips during the year as against 26,107 for the previous year; the increased service being partly due to an increase of personnel. If we could get six more permanent men I think we could show a 40 percent increase in our service.

This, we will venture to say, is more personally guided trips than any other unit of the Park Service gave during the year.

Of these 29,769 personally guided trips, 18,725 were field trips in which we conducted 101,344 visitors through our prehistoric ruins, geological formations, or historic sites. The average party was made up of 5.4 persons, from which it will be readily seen that they received almost personal attention and were able to have all their

CONTACT FIGURES COVERING VISITOR YEAR ENDING SEPTEMBER 30, 1937, AND SEPTEMBER 30, 1938

FIELD TRIPS						MUSEUM TALKS						EDUCATIONAL		TOTAL VISITORS		PERCENT CONTACT	
	NUMBER	ATTEND	TIME	AV. ATT.	AV. TIME	NUMBER	ATTEND	TIME	AV. ATT.	AV. TIME	CONTACTS						
Oct., 1936	1348	6184	52661	4.5	39.0	997	4713	16757	4.7	16.3	10897	14869	73.2				
Nov., 1936	1299	7926	45733	6.1	35.2	691	3127	10455	4.5	15.1	11053	14263	77.3				
Dec., 1936	1019	6061	41106	5.9	40.3	464	2902	8856	6.2	19.0	8963	13391	68.8				
Jan., 1937	977	7328	36059	7.5	36.1	388	3158	8209	8.1	21.1	11032	15597	70.8				
Feb., 1937	1181	8011	48196	6.7	40.8	632	3863	10280	6.1	16.2	11874	15661	75.8				
Mar., 1937	1266	7837	48682	6.1	38.4	631	4108	11084	6.5	17.5	11945	16775	61.7				
Apr., 1937	1410	8210	60931	5.8	43.4	753	4733	14148	6.2	18.7	12943	22718	56.9				
May, 1937	1256	8443	56904	6.8	44.5	799	4492	15376	5.6	19.2	12906	21433	60.1				
June, 1937	1589	8693	77832	5.4	49.0	1055	5564	20806	5.2	19.7	14260	25342	56.2				
July, 1937	1648	8935	87504	5.3	48.6	1051	5518	18185	5.2	17.3	14451	34717	41.6				
Aug., 1937	1940	12259	100339	6.3	51.6	1094	6894	20876	6.3	19.8	19153	40035	47.8				
Sept., 1937	1600	9071	77634	5.6	48.5	1019	5365	18896	5.2	18.5	14436	29488	43.9				
TOTALS	16533	98929	732691	5.9	44.3	9574	54437	173928	5.6	18.1	153912	266520	57.7				
Oct., 1937	1114	5836	49039	5.2	44.0	658	3270	12016	4.9	18.2	9151	20459	UNATT'D				
Nov., 1937	1097	5643	44574	5.1	40.4	722	3478	13227	4.8	18.3	9033	17805	11546				
Dec., 1937	1054	4539	37012	4.3	35.1	775	3227	15437	4.1	19.9	7868	11503	7012				
Jan., 1938	1274	8472	51594	6.6	40.4	736	5593	16428	7.5	22.3	14065	19191	10609				
Feb., 1938	1511	8465	52361	5.6	34.6	692	4469	15148	6.4	21.8	12934	20224	11734				
Mar., 1938	1221	7237	44514	5.9	36.2	499	3812	11739	7.6	23.5	11049	16159	8214				
Apr., 1938	1591	11243	70188	7.0	44.1	880	5360	19780	6.0	22.4	15754	31720	20074				
May, 1938	1519	7680	70293	5.0	46.2	804	4751	19253	5.9	23.9	16032	22649	10795				
June, 1938	1965	9267	92680	4.7	47.1	1226	5546	27015	4.5	22.0	14813	28178	17739				
July, 1938	1952	10252	102285	5.2	52.4	1388	8031	30500	5.7	21.9	17359	42282	30050				
Aug., 1938	2155	12422	118652	5.7	55.0	1488	8340	31767	5.6	21.3	28981	52156	28285				
Sept., 1938	2272	10293	113701	4.5	43.5	1176	5796	23287	4.9	19.8	16068	36638	22180				
	18725	101344	838613	5.4	44.7	11044	61673	236597	5.5	21.3	173107	319164	193318				

Per cent contact for 1938 visitor year, 54.2.

Per cent contact for 1938 visitor year, 54.2.

ANNUAL VISITOR CONTACT SUMMARY (CONT.)

questions answered. The average trip time for the year was 44.7 minutes, as against 44.3 minutes for the previous year.

We gave 11,044 museum trips and talks to 61,673 visitors, the average party being 5.5 persons and the average time being 21.1 minutes. In the previous year the average party was 5.6 and the average time was 18.1 minutes.

We are more fortunate than most parks in that we do not shut down in the winter season and then have to open up in the summer. Our load shifts from one part of the district to another and our maximum load is about twice as heavy as the minimum, but we are always working. Our field trip minimum fell in December with 1054 trips and our museum trip minimum fell in March with 499 trips. The maximum number of field trips were given in September with 2,272 trips. The museum trips reached their peak in August with 1,488 trips.

Altogether we gave over a million minutes of our time to over 162,000 visitors in this educational service.

*****SWI*****

ANNUAL VISITOR RECORD BY MONUMENTS , 1938

By Superintendent Pinkley

Our 319,164 visitors for the 1938 visitor year closing September 30, were divided among the 26 monuments under our charge, running roughly from 100 at the poorest attended monument to 100,000 at the best attended one. The minimum number came to Gila Cliff Dwellings and the maximum number came to White Sands, two areas relatively close together.

They came over all kinds and conditions of roads and through all kinds and conditions of weather. They ran from a minimum of 11,503 in December to a maximum of 52,156 in August.

Excepting December and March, each month of the year shows an increase over the previous year. This would be nothing to be happy about if the increase fell on the wrong monuments, but it happens to have fallen this year at monuments where no particular harm resulted.

Aztec National Monument shows a sharp surge upward which forced us to send in some temporary aid this summer and which will demand

ANNUAL VISITOR RECORD - SOUTHWESTERN MONUMENTS - 1938
OCTOBER, 1937 - SEPTEMBER, 1938, INCLUSIVE

MONUMENTS	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	TOTAL	LAST YEAR
Arches	80	106	*50	*25	*35	*150	*150	*170	114	186	182	*200	1,000	
Aztec	882	771	503	798	810	926	3449	1707	1873	2264	3479	2752	1,303	
Bandelier	933	982	263	298	221	400	845	1087	1718	2707	3355	1910	14,380	
Canyon de Chelly	149	45	4	14	45	27	65	193	178	233	232	238	1,422	
Capulin Mountain	*1100	*600	*300	*250	*750	*600	*1100	*1500	*2000	*7500	*8000	3000	26,100	
Casa Grande	2482	2664	2951	4766	4227	3295	3823	2433	1794	1763	1694	1889	33,661	
Chaco Canyon	391	134	87	73	301	391	840	851	903	775	650	875	8,014	
Chiricahua	727	717	265	583	402	547	1050	941	1292	1033	1012	576	9,145	
El Morro	196	190	73	81	50	34	206	175	417	580	764	442	3,208	
Gila Cliff Dwell.	*15	*10	*0	*0	*0	*0	*0	*10	*10	*30	*20	*10	105	
Gran Quivira	198	213	199	103	135	224	263	279	553	357	417	172	3,113	
Hovenweep	*0	*0	*0	*0	*0	*0	*0	100	*25	*15	20	8	102	
Montezuma Castle	734	705	403	599	466	380	1107	789	1121	1490	1696	1155	9,813	
Natural Bridges	109	79	*0	*0	*0	*0	*0	20	67	188	197	122	741	
Navajo	70	2	2	4	3	2	34	22	55	82	76	59	411	
Organ Pipe	*900	*500	*700	*700	*700	*700	*800	*100	*150	*300	*300	*350	6,200	
Pipe Spring	67	200	142	151	80	91	214	96	388	198	315	303	2,245	
Rainbow Bridge	*56	*10	*0	*0	*0	*0	*10	*26	*35	*35	*30	*20	222	
Saguaro	*1500	*1600	*2000	*3000	*3500	*3000	*2472	*1500	*900	*300	*300	*350	20,422	
Sunset Crater	1000	183	200	100	150	151	227	488	885	1287	1428	823	6,922	
Tonto	250	250	360	679	684	612	717	295	301	320	277	240	4,985	
Tumacacori	801	903	846	1943	1795	1407	2571	1018	856	1005	1152	992	15,289	
Walnut Canyon	841	544	270	231	127	196	908	1153	2138	2378	2827	1913	13,526	
White Sands	6843	6233	1330	4730	5704	2962	10700	7452	10039	16630	22941	14446	110,805	
Wupatki	85	90	75	63	39	64	169	184	356	424	652	553	2,754	
Yucca House	*50	*20	*0	*0	*0	*0	*0	*60	*10	*12	10	10	172	
TOTALS	20459	17805	11503	19191	20224	16159	31720	22649	28178	42282	52156	36838	319,164	
Totals, 1937	14869	14283	13021	15577	15661	19345	22719	21463	25342	34717	40035	29488	266,520	
Totals, 1936	12608	11309	8525	14044	13859	15379	18830	22833	23838	30110	40942	33507	245,784	

*Figures estimated; #Includes estimates estimated figures; Actual count no estimates included.

ANNUAL VISITOR RECORD BY MONUMENTS, 1938. (CONT.)

more help next summer. It is due to the road improvement over the Wolf Creek Pass in Colorado which allows traffic to come and go in all months of the year, whereas the pass used to be closed many months of the winter. Also, this improved and widened road has increased the summer traffic into southwestern Colorado and northern New Mexico.

*****SWI*****

BRANCH OF ACCOUNTING

By Parke W. Soule, chief clerk,
Coolidge, Arizona.

Vouchers prepared during the month, regular appropriations,	112	
Vouchers prepared during the month, CCC	<u>134</u>	246
Purchase orders issued, regular appropriations, Hdqrs.,	48	
Purchase orders issued, CCC,	<u>116</u>	164
Allotment ledger sheets prepared, regular appropriations,	325	
Allotment ledger sheets prepared, CCC,	<u>89</u>	414
Expenditures:		
1491000 National Park Service, 1939	<u>Total for Month</u> 7,907.21	To Date 22,238.18
148/91000 National Park Service, 1938-39	249.14	454.41
14-1010 Roads and Trails, NPS	125.00	754.63
Civilian Conservation Corps	6,898.86	20,617.95

OFFICIAL MAIL COUNT FOR SEPTEMBER, 1938.

Incoming:-----3,493
 Outgoing:-----3,240
 Total Official Postal Mail-----6,733

Official Telegrams:

Incoming:----- 26
 Outgoing:----- 18
 Total Official Telegrams----- 44

GRAND TOTAL OFFICIAL MAIL-----6,777

Personal incoming mail-----1,124

GRAND TOTAL MAIL HANDLED-----7,901

PERSONNEL

By and Boss (and others)

Taking it by and large, it has been a pretty busy month and a lot of people have been doing a lot of things, so many that we have been so busy that we are likely to overlook many of them in this checking up if we are not careful.

To tie up some of last month's strings first, we note that we left Hugh and Chris out on a field trip which took in Tonto, the Gila County Natural Bridge, Montezuma Castle, Tuzigoot, Walnut, Camp MI-5-A, Wupatki, Chaco, Aztec, Arches, Pipe Spring, with some business in town along the way. Eventually they returned safely. Yesterday Hugh had to go to Gallup, leaving here about noon and getting in there last night, to attend the oral examination of three candidates for park rangers which is to take place today.

Tov. has returned from a field trip with the word that Camp MI-5-A is doing good work at Walnut Canyon. They have the foundations for the new residence opened, the rock quarry going full blast and are beginning to make rails and shakes. The road is staked out and, as soon as we can get approval, the road crew will be away to a fine start. Polly returned with Tov. and says she had a fine trip up in the cool and did not overdo.

We also left Walt. Smith out on a limb last month in that he was running for office. We might salvage him by reporting that he won at the primary election and stands a good chance to be elected to the office of County Supervisor. Many of our field people know Walt. and Mrs. Smith.

Al. and Don have jumped the gun on us by reporting that Ruth's idea prevailed on that trip to the coast. Seeing that she took care of herself and the trip did her no harm, we are glad she went. The wedding was a success and the only untoward incident we heard of was Don's car which threw a chain drive to the timer and expired in a shriek of grinding metal on one of the busiest blocks in Los Angeles. That's what comes of taking a country car into the big town.

Natt, Hap and the kids came in on time, all very much refreshed by the high Colorado air, and have settled down to the old grind. Natt brought home some fine color film, official film we might remark, and the evening talk on "Glimpses of the Southwestern Monuments" is just that much farther on the way.

Incidentally, Hugh has turned out to be a high grade colored still man, (having nothing to do with negros or liquor) and is

PERSONNEL (CONT.)

adding to our colored lantern slide collection with each field trip.

Bina Bicknell is due at home soon and then headquarters will begin to take on its fall aspect with all the quarters filled and vacations over. Bina reports a fine time on the coast but says she will be glad to get back home again.

Louis and Winnie Caywood report a good time on their vacation but came home early, we suppose in order to rest up before it was time to go to work again.

Tommy Onstott dropped in on his way from summer duty at Bandelier to school at Tucson to turn in his badge and insignia. He looks like the summer feed up at Bandelier was pretty good and says he liked the work very much.

Also Alfred and Bernice Peterson came in off the Roving Ranger job, turned in the car and equipment, and went to Tucson in their own car which had been in storage at headquarters. It is quite clear from our studies of Hovenweep that we must have more area there for proper administration. Aside from gnats, flies, funny water, etc., Alfred and Bernice say it was a pleasant summer's work.

Irving McNeil has also gone from summer duty at Bandelier so Cy. must be getting ready for the first snow. We might say that we had a fan letter yesterday saying the writer was sending us a picture of the ceremonial cave at Bandelier and wanted us to observe how Ranger McNeil was holding his crowd with his talk.

Speaking of fan mail reminds us that we haven't heard from Millard and Ruth Henning for a long time, probably due to the fact that their last letter caught us in a rush and didn't get answered, but we hear second hand that they are heading into the Southwest, and it will be nice to have them visiting the various monuments again.

Jimmie Brewer was to go up yesterday for his oral examination at Gallup after several months on duty. We don't quite see the sense of that; after Jimmie has been working for us for several months we must certainly know about his personality, that he isn't cross eyed, and makes a pleasing impression on visitors, and that is about all the oral examination is supposed to develop.

Jimmie and Sallie, by the way, wrote in saying they were rarin' to go over into the Navajo country and the papers are on the way and it looks like a fade-out with them sitting on the rim of the canyon looking into that magnificent Be-ta-ta-kin setting.

Harry Reed is promising us a colored movie film of the Arches right soon out of some official film we are sending him, and also says

PERSONNEL (CONT.)

he can use some five-by-seven film we happen to have on hand for some pictures of new stuff. Harry has now switched from the all-time to the part-time job at Arches although the visitors are still coming.

Carroll Miller writes us that he hasn't been feeling top flight for some time and may take time out for an appendix operation. We are sorry to hear it and hope to have a better report on him next month.

Charlie Carter and Patsy have been out on a couple of field trips during the month and he has been working in the office the rest of the time. We point with pride to Charlie's garden plan and perspective in the Supplement (pg.258-9 and 273); it is his first experience with stencil cutting and drawing on a stencil is, according to our thinking, far from an easy job.

At this writing Charlie Steen and Tommy Onstott are over in the mountains back of Tonto for a few days on a little archaeological reconaissance. It is in rough country and Mary decided to stay at home in comfort. Charlie is on annual leave and, quite naturally, is studying ruins for a change and rest.

Charlie's preliminary plan on the White Sands museum came back from Berkeley the other day with only minor changes suggested so he will be glad to know, when he comes out of the back country, that the first hurdle has been successfully passed.

Woodrow Spires has finished his summer tour of duty at Canyon de Chelly and, we understand, is going back to school at Tempe, Arizona, this winter.

Johnwill Faris took time off to run down to White Sands and look at what Tom Charles would say was a real monument. He reports a pleasant trip and admits that Tom has an interesting place.

Stremple Coyle, one of our CCC guides at Casa Grande, is in the Phoenix Indian School hospital recovering from an appendix operation. He is nearly ready to come home and we will be glad to have him back on the job.

Larry Mungerro, a CCC clerk, was also off on a few days leave getting some glasses fitted. He will work in much more comfort we are sure, now that the correction is made.

Frank and Corabeth Fish and the minnows are on annual leave at this writing and are back in Arkansas visiting Corabeth's folks. We have had no word from them since they left which probably means they are too busy enjoying themselves to write.

Speaking of fish; for a time it looked as if White Sands might

PERSONNEL (CONT.)

break into the scientific spotlight with the discovery of a new species capable of living in the highly gypsum-impregnated water of that area. We don't know just what took place, but after some high-powered investigations in which Tom Charles, Charlie Gould, and H. H. Hawkins were the main figures, it was determined that the fish were sardines, apparently discarded from somebody's lunch. And another chance for fame has gone glimmering!

Some of the CCC boys had a lot of fun with Gene Stonehocker and at the same time retaliated for some of Gene's practical jokes. One of the boys caught a large scorpion which, after amputating the sting at the tip of the tail, he put in a small electric-fixture box. Knowing Gene's habit of keeping the shop neat and orderly, he left the box in a conspicuous place, and hid. Gene came along, picked up the box, and of course took off the cover. The boys report that the scorpion climbed right up Gene's arm and that Gene, box, and scorpion all flew in different directions. The boys are now going around in pairs, and Gene is biding his time.

Somewhat garbled reports come to us regarding Louis Caywood being taken for a walk by two young ladies in a Nogales (Mexico) cabaret. Inasmuch as the event occurred in public and Winnie was there, we don't see anything scandalous about it, but Louis shuts up like a jackknife when the incident is mentioned.

It isn't often we get one on the Boss, but occasionally he slips. On a recent trip to San Xavier Mission with some distinguished guests, the Boss, in his usual unostentatious manner, quietly handed the Padre a greenback as the group's expression of gratitude for the guide service rendered. Some hours later in a Tucson hotel, the Boss found himself in an embarrassing position when he undertook to pay the dinner check. He had neglected to look at the denomination of the bill he had given to the Padre.

Gil Philp came through headquarters from his summer work at Chiricahua and went on into California where Jane had preceeded him. He will be back when his leave expires for another short stretch of duty at Tonto.

Homer Hastings was up for his oral examination the other day at Gallup and we hope he passed all right.

Roland Richert, of Tonto National Monument, came through headquarters and checked off his summer tour of duty. He then went on down to Tucson to the University for the winter.

The Boundey family at Gran Quivira are having a continued run of bad luck. This time it is George with an infected arm which has caused two trips to Albuquerque for lancing. George has our sympathy

PERSONNEL (CONT.)

and we hope the family luck will now change for a season.

L. C. Ingle has finished up his tour of duty at Canyon de Chelly where he was filling the position vacated by the resignation of Bill Lipincott, and Johnwill is now running the monument by himself.

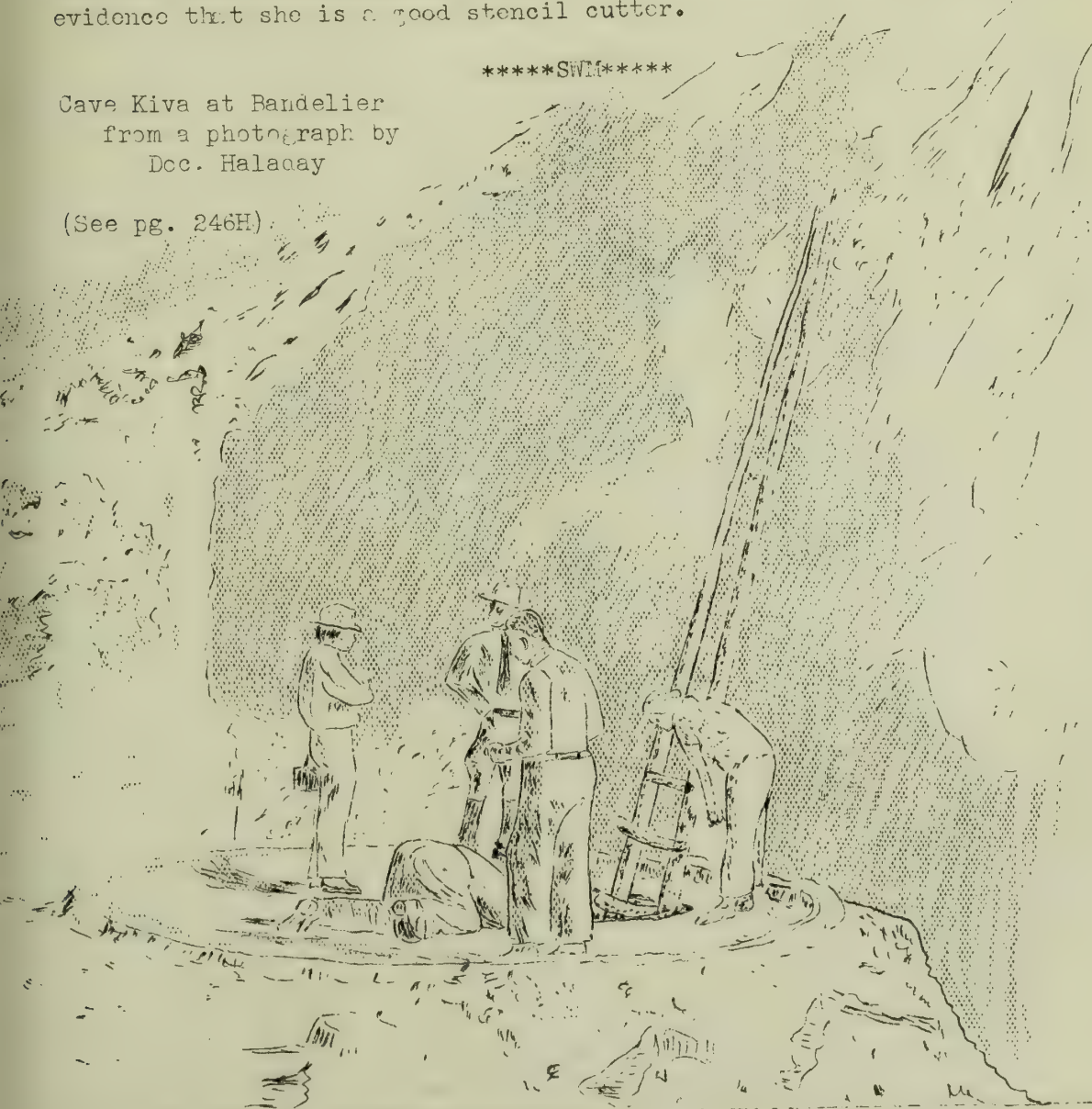
We have had no word from Earl and Betty Jackson and hope they were well out of the path of the storm which struck New England.

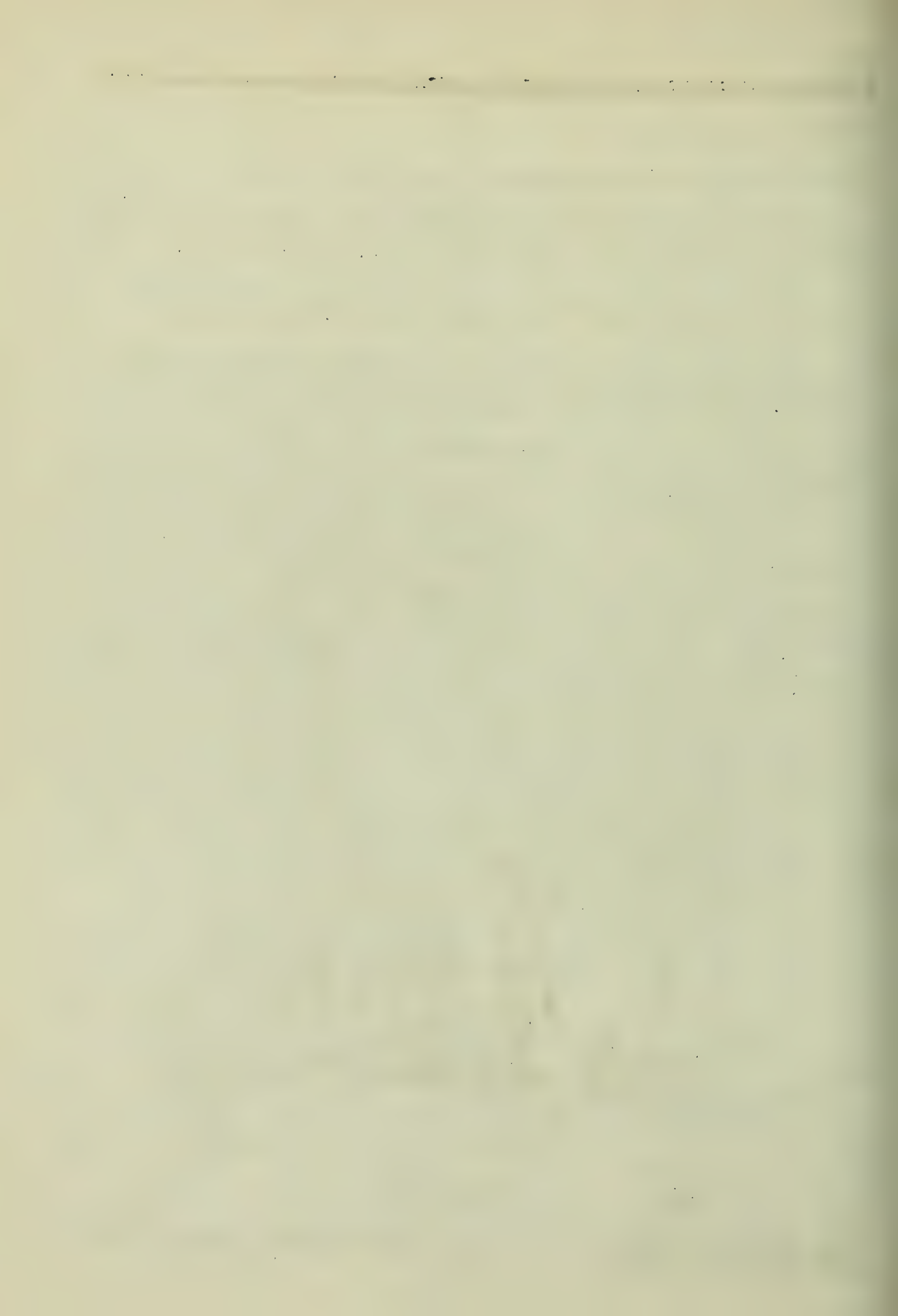
Jean Soule is going to help us out over the month ends hereafter and last month's Supplement as well as this month's report will give evidence that she is a good stencil cutter.

*****SWI*****

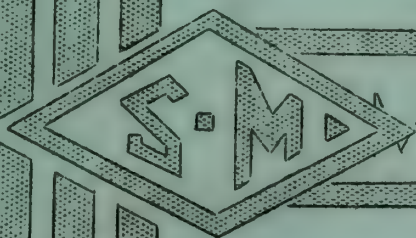
Cave Kiva at Bandelier
from a photograph by
Doc. Haladay

(See pg. 246H)





THE Supplement



MONTHLY REPORT

SUPPLEMENTAL OBSERVATIONS

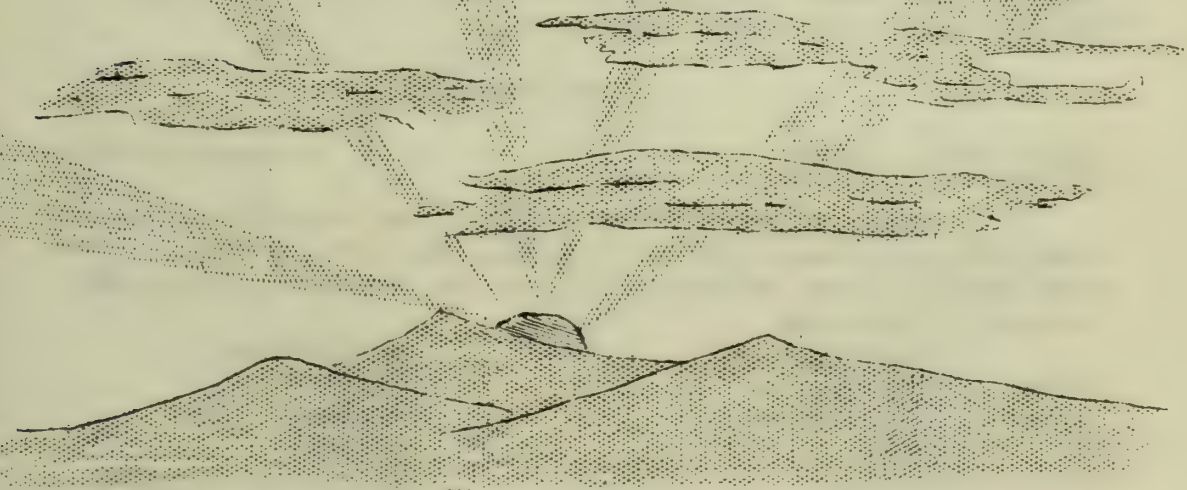
DESERT SUNSET

Behind the western mountains' granite doors,
The smouldering fires of the day burn low
Reflecting on the cloud-smoke, far above,
The dying embers' rich and ruddy glow.

Fanned by the evening breeze, a restless spark
Flares up to send a shaft of saffron fire
Across the shadowed earth. Far to the east
It paints a cloud and gilds a mountain spire.

Night settles down on silent, velvet wings
Releasing bats and crickets on her way,
Swings shut the western doors, adjusts the drafts,
And banks the fires for another day.

N.N.D.



OBSERVATIONS FROM CAPULIN

By Homer Farr

On July 28 I observed a grasshopper flight which began at six in the morning and ended about three in the afternoon. All of the insects were heading due south, the lowest ones appearing to be about 50 feet above the ground and the mass of hoppers extending up into the sky as far as I could see with an eight-power glass. The flight continued steadily for approximately nine hours. The insects appeared to be about as numerous as one to every cubic yard.

Reports from reliable neighbors indicate that the mass of insects extended as far as Clayton, 55 miles east; and on the west as far as Raton, 30 miles away, thus following a path approximately 85 miles away. In the morning the insects were traveling at the rate of about three miles per hour, but as the sun warmed them they increased the tempo of the flight to about 12 miles per hour.

*****SWM*****

BIRD BANDING AT CHACO CANYON

By Carolic McKinney

	<u>NEW</u>	<u>REPEAT</u>
Canyon Towhee.....	3.....	3...
Desert Black-throated Sparrow.....	6.....	0...
Scaled Quail.....	3.....	3...
	<u>12</u>	<u>6</u>

Black-throated Sparrows banded this month were juveniles and were hardly feathered out. They seemed to arrive all in one group and, when one was in the trap, the rest hovered close by voicing their indignation.

Several of our banded quail raised their families along the Chaco Wash and frequently brought them around the residence; however, they showed little interest in the traps. The three quail we banded this month were young.

*****SWM*****

CHACO CANYON FLOWERS

By Homer Hastings

During August the University of New Mexico students have been taking a botany hike each morning from 6:45 to 8:00. I have been trailing along and have collected the following plants not previously reported.

<u>Scientific Name</u>	<u>Common Name</u>
Gutierrezia tenuifolia	snake weed
gutierrezia furfuracea	turpentine weed
Ribes inebrians	currant
Atriplex canescens	chamiso or fourwing
Atriplex lentiformis	salt bush
Gaura podocarpa	

CHACO CANYON FLOWERS (CONT)

Tamarix gallica
 Mentzelia multiflora
 Amaranthus retroflexus
 Physalis neo-mexicana
 Sphaeralcea lobata
 Franseria tenuiloba
 Gilia pumila
 Tribulus terrestris
 Cleome
 Clematis ligusticifolia
 Artemisia tridentata
 Artomisia frigida
 Chrysopsis villosa
 Euphorbia sp.
 Forestiera neo-mexicana

tamarisk
 many-flowered evening star
 red root or pigweed
 ground cherry
 bigger weed or mallow

gilly flower
 puncture vine
 Rocky Mt. bell plant
 clematis or virginian bower
 sage brush
 aestifita

spurgo
 wild privet; New Mexico
 ironweed
 prairie clover
 scarlet bugler
 Jimson weed or sacred datura
 hoarhound
 horse's tail

Petalostemon oligophyllum
 pentstemon torreyi
 Datura meteloides
 Marrubium vulgare
 Leptilon canadense

This makes a total of 59 plants reported since May 15.

*****SWM*****

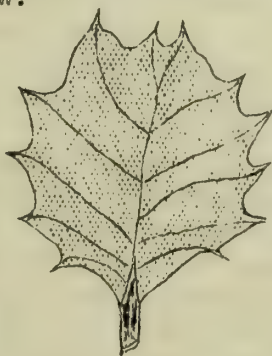
CHIRICAHUA COMMENTS

BY Frank Fish

During August another oak (Quercus gambelii) was found to be present on the monument. This, along with Q. arizonica, constitutes the White Oaks. There are five Black Oaks; Q. Wilcoxii, Q. emoryi, Q. hypoleuca, Q. toumeyii, and Q. reticulata. Of all these oaks, gambelii sheds its leaves in the autumn, and arizonica during the dry season of May, June, and July. The remainder are evergreen. Leaf sketches follow:



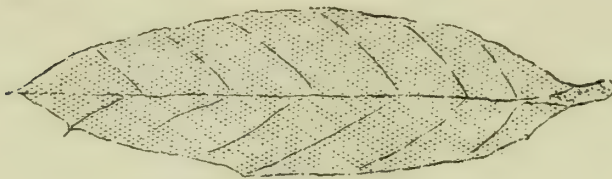
Quercus
arizonica



Quercus
Wilcoxii



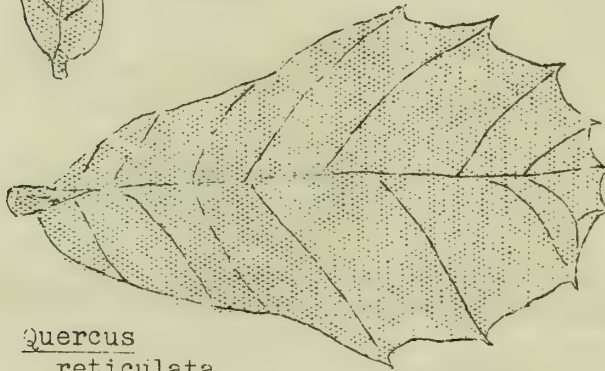
Quercus emoryi



Quercus hypoleuca



Quercus
toumeyii



Quercus
reticulata



Quercus
gambelii

A number of white tail deer have been seen along the Bonita Canyon highway. Two large bucks were observed by Foreman Nelson near Massai Point. During mornings and evenings, deer are frequently seen in and around the orchard at Faraway Ranch.

*****SWM*****

AUGUST BIRD NOTES FROM CHIRICAHUA

By Gordon G. Philp

August is noteworthy in that numerous species in this area are hard at the task of raising their vigorous youngsters. Observations in this direction pertain mostly to nestlings practically ready to leave the nest or to juveniles just from the nest.

Who would not be impressed by the beautiful pendant nest of the Hooded Oriole masterfully interwoven to the leaves of an English Walnut Tree? Far out upon a graceful, slender branch these two builders chose to construct their intricate, skillfully formed nest. Well constructed as it was, it still lacked certain refined characteristics common to this species. This is traceable to the fact that the architects were mere youngsters, at least the male was slightly more than one year from the nest. The fact is well established that experience (age) add materially to the piece of work a bird is capable of creating. Of course, with some birds the

AUGUST BIRD NOTES FROM CHIRICAHUA (CONT)

age of the home maker plays little importance so far as skill is concerned. This is true merely because some species are so poor at the task, even though they be completely matured, that little or no difference is noticeable between an immature and an adult's work. For instance, the home of the Black-headed Grosbeak is of such a ramshackle nature that all of this species' structures are poor and little difference is evident.

The incubation period for the single egg of our common Band-tailed Pigeon proved to be just 14 days. The development of the bird in mind was so rapid that the fact seemed unbelievable--within eight days after hatching, the little fellow was robust and combative. Also, upon the 8th day the attention the squab received from his parents lessened noticeably. No longer did one or the other of the adults remain almost constantly at the nest; no longer did they shield the little fellow from rain and wind. It seemed incredible that so young a bird could resist the elements. A feeding schedule was adhered to quite rigidly by the female and except for this single daily visit in the morning hours, she was never noted in the vicinity. The manner in which she fed her young proved exceedingly interesting. Upon the arrival of his mother to the nesting site, the squab responded to her soft cooing with a fluttering of wings. This latter is common to innumerable juveniles. The youngster knew exactly what was necessary in order that he be fed--his bill eagerly found its way into his mother's throat at which time she commenced a series of pump-like movements with her neck. This vigorous movement, of course, tossed her offspring about to a noticeable extent, but discouraged him not in the least. Feeding in this manner continued for a full eight minutes with numerous 30 second intervals for rest. The milk provided at such a feeding proved adequate for often more than 24 hours of sustenance.

Cowbirds have been seen and heard repeatedly of late and are very likely going about their miserable practice of laying in the nests of other species.

The following birds have been noted nesting upon the monument: July 1st to date--Band-tailed Pigeon, Western Robin, Black-headed Grosbeak, Western Wood Pewee, Hooded Oriole, Spurred Towhee and Ruby-throated Hummingbird. Numerous other species nest here but, having arrived late in the season, I was unable to verify the fact.

The following are listed in order of their abundance and represent all the species I have noted since my arrival on July 1, 1938:

- | | |
|------------------------|---------------------------------|
| 1. Pigeon, Band-tailed | 5. Woodpecker, Mearn |
| 2. Jay, Arizona | 6. Flicker, Red-shafted |
| 3. Robin, Western | 7. Warbler, Black-throated Gray |
| 4. Pewee, Western Wood | 8. Titmouse, Bridled |

BIRD NOTES FROM CHIRICAHUA (CONT)

- | | |
|------------------------------|--------------------------------|
| 9. Grosbeak, Black-headed | 22. Vulture, Turkey |
| 10. Towhee, Spurred | 23. Wren, Baird |
| 11. Nuthatch, Rocky Mountain | 24. Hummingbird, Ruby-throated |
| 12. Woodpecker, Arizona | 25. Hawk, Cooper |
| 13. Kingbird, Cassin | 26. Jay, Pinyon |
| 14. Virco, Cassin | 27. Tanager, Hepatic |
| 15. Oriole, Hooded | 28. Dove, Western Mourning |
| 16. Nuthatch, Black-eared | 29. Jay, Long Crested |
| 17. Swift, White-throated | 30. Eagle, Golden |
| 18. Goldfinch, Green-backed | 31. Flycatcher, Ash-throated |
| 19. Wren, Canyon | 32. Raven |
| 20. Swallow, Violet-green | 33. Bush-tit (species?) |
| 21. Hawk, Red-tailed | 34. Swift (Black?) |

*****SWM*****

HEADQUARTERS HAPPENINGS

Early in August all representatives of several species of birds apparently left the headquarters area for their "summer vacations". Say Phoebe, Ash-throated Flycatchers, and English Sparrows, previously so numerous, disappeared. Gila Woodpeckers left the area in late spring, possibly in search of suitable nesting locations. By September 12 the Say Phoebe, Gila Woodpeckers, and English Sparrows were again as numerous as ever around the offices.

The one-eyed Cactus Wren, introduced in the August Supp., is frequently seen about the buildings. On three separate occasions he has been observed inspecting Goodie's bed which is out behind the bachelors' quarters in the Old House. After hopping about over the quilt, the bird slipped his head under the pillow and then beneath the covers neatly laid back at the head of the bed. We wonder what there is that could be of interest to a Cactus Wren, in a bed.

Custodian Al. Bicknell reported a Mourning Dove's nest with two eggs in it on September 13. This is the seventh consecutive month during which dove nests have been observed at Casa Grande indicating a remarkably long breeding season for this species.

Junior Naturalist Dodge reported an encounter with a Horned Rattlesnake near his front door one August night about 11:30 as he was retiring to his outdoor bed. His difficulty in finding anything with which to dispatch the snake led him to suggest that each residence be equipped with a "snake extinguisher" to be hung just inside the door beside the fire extinguisher.

*****SWM*****

On July 26 Ed Alberts saw six tiny rock squirrels (Ground Gray Squirrel) in the Castle. They couldn't have been more than a few days old. The next day they were seen busily scampering about on a lower level of the Castle, trying to dig holes in the roof.

On August 2 the Custodian saw a bullsnake about two and a half feet long in a small hole in the cliff directly behind the third ladder leading into the Castle. What a snake would do in such a hole high up in a cliff is a puzzle. There was a bird nest there he could have intended raiding, but it had been abandoned for a long time. On August 2 a small kingsnake (probably Boyle's King Snake) decided to visit the museum. He went inside and caused considerable interest among tourists until he was shooed out. We felt that he was too young to enjoy the museum and would have to return when he was older.

On August 12 we saw the first skunk of the summer under the cutbank in front of the museum. On August 20 we learned that a very large kingsnake, about three and a half feet long, is summering in the revetment wall in front of the museum. On this same day Ed. Alberts brought back from the Castle the startling information that the rock squirrels living there have the itch. Let's hope it isn't the seven year variety, Ed.

This year we notice that the Datura Lilies (Datura meteloides) and the Orange Mallows are producing a second crop of flowers, just as vigorous as their first.

Here is a bit of information on technique that might be useful to somebody. I had to drill a round hole about as big as a lead pencil through the quarter inch plate glass of an aquarium.

I bought a slim file and ground on an emory wheel the triangular shaped end down into a sharp point. This made a three cornered point. Then I put the file into a carpenter's brace, the same way a bit would be put into it. Then I put the point of the file on the glass where the hole was to be. I took the upper end of the brace in one hand and without exerting any pressure at all, simply letting its own weight force the point against the glass, started the brace to whirling. By a very slight motion of the hand it was possible to keep the brace revolving at considerable speed without pressure and without use of the other hand. As I turned the brace, I kept pouring a little water on the glass, to keep it from shattering at the edge of the cut.

After a hundred revolutions or so, the drill had to be sharpened again. Finally, after about four hours, the hole worked through to the other side of the glass. Just as the hole appeared,

FROM MONTEZUMA CASTLE (CONT)

I began working the drill from the other side.

The result was a hole as perfect as a picture, with no shattering. All you need is plenty of elbow grease, time, and a steady hand.

*****SWI*****

BIRDS AT MONTEZUMA CASTLE

By Betty Jackson

The birds seen in August were as follows: Arizona Cardinal, Texas Nighthawk, Mourning Dove, Arizona Hooded Oriole, House Finch, Wood Peewee, Red-shafted Flicker, Phainopepla, Vermilion Flycatcher, Black Phoebe, Cooper Hawk, Gambel Quail, Red-tailed Hawk, Desert Black-throated Sparrow, Western Sparrow Hawk, Sparrow sp., Green Heron, Cliff Swallow, Treganza Blue Heron, Hepatic Tanager, Black-throated Hummingbird, Lucy Warbler, Hummingbird sp., Sonora Yellow Warbler, Wood Ibis, Cactus Woodpecker, Killdeer, Gila Woodpecker, Arkansas Kingbird, Baird-Bewick Wren, Cassin Kingbird, Canyon Wren, Ashy Roby-crowned Kinglet, Rock Wren, American Merganser, and Western Mockingbird.

I might as well start out with a correction. I said last month that Bailey was wrong about the bill color of the Pyrrhuloxia. As usual when I criticize an authority, I'm the one that's wrong. After seeing them again this month, it turned out it was a female cardinal and young. The pink bill is of course natural.

I saw her again this month, and got a good look at the breast and head markings. There was none of the gray in the middle. This time I saw her with the second brood, on August 21. There were two of them just able to fly a little, but with no food-getting ability.

On the 28th of July, Earl and I were collecting flowers and saw lots of birds. Among the most interesting things was a Black Phoebe catching moths and other insects off the moss in the creek. We stood in the middle of the stream, and he didn't mind us a bit. He perched on a dead water moody (Baccharis glutinosa) or cottonwood twig, scanning the moss, and singing to himself. Then when he saw a bug he would dive for it. One time he spat down on his belly, wings outstretched to carry him on after he bounced up again.

We also saw a Baird-Bewick Wren and three young, all in a row on a branch. You who haven't seen and heard these friendly little wrens have missed something. I see at least one every day I go out, and they are the most unconcerned little things, running up and down the tree trunks and bobbing through and around the mesquites and cat-

BIRDS AT MONTEQUIA CASTLE (CONT)

claws. They talk to themselves with a harsh chirp, or get on the inside of a bush and sing a lovely varied song.

I heard a lot of mowing like a catbird, very excited. When I went to investigate there was an excited mockingbird in the top of a sycamore. As I watched, a Cooper Hawk flew out of the tree, and the mockingbird followed it out, screaming all the way.

On the 21st I saw two Cooper Hawks which must have been an immature and a female. I only saw the female in flight, but I got a good look at the immature, his stripes running up and down his chest instead of across. The female looked as big as a red-tail in flight.

I have heard a pewee all month, and for two months or more have seen what I called a flycatcher sp. I think now that they are one and the same, but I wouldn't be positive unless I took a specimen.

Our Ruby-crowned Kinglet is back again, and so is the Gila Woodpecker. And though I'm not sure, I think the Broad-tailed Hummingbird is here as well as the Black-throated.

Earl adds: Betty forgot to mention that one day when walking down to the Castle she and I saw a young hummingbird perched on a mosquito branch and looking very harassed. He was just learning to fly, and was short on nerve. Mama hummingbird kept flying near and apparently urging the youngster to fly. But all he would do was open his beak wide and vibrate his throat. So finally Mama had all of this she could stand, and she came back from one of her flights and into his open mouth rammed her bill until it must have gone almost as far as his gizzard. Then she withdrew it, and the young one seemed happy. She repeated this process several times in the next ten minutes. It is obvious she was feeding the young one by regurgitating her own food.

*****SWH*****

TUMACACORI "WILDLIFE"

Bears bring grief to rangers in many of the national parks, but at Tumacacori it's goats. Several of the animals owned by a farmer near the monument took so much of the Custodian's time chasing them off the premises, that he obtained permission of the owner to try the effect of a shotgun loaded with salt. Finding that this did not disturb the animals' placid outlook on life, the Custodian used bird shot with effective results. Two goats treated in this manner afterward gave the monument a wide berth in their wanderings. A third, however, continued to visit the area. Seeing the three goats coming down the road, Louis went for his gun. When he returned to the gate, the two "wise" goats were standing in the road while the

TUMACACORI "WILDLIFE" (CONT)

uneducated one was well within the parking area. After the smoke and dust had cleared, Louis reports the two goats still standing in the road, while the third was retreating rapidly in the direction of home. "It is the first time," Louis states, "that I ever saw goats laugh."

*****SWM*****

NATURE NOTES FROM WHITE SANDS

Bats, previously unreported from the monument, have been making life miserable for Johnny Stevens. Every morning during the last few weeks several have been found flitting about or hanging from the rafters in the lobby. At least two species are present.

Some visitor this summer discarded a watermelon seed in the patio. At present time a healthy watermelon vine adds much to the greenery of the area and is trying to climb the trunk of the patio cottonwood tree. The boys fear that it started too late to mature fruit this summer.

*****SWM*****

WILDLIFE AT WALNUT CANYON

By Paul Beaubien

I saw six deer, just west of the cabin, all with antlers. This occurred August 22. Then on the day I hunted the forest fire in the rain, I saw one antelope and two small groups of deer, besides frightening two fawns from under logs.

Have recently noted an increase of birds at the bird bath. If I can outsmart the cows that habitually congregate in the yard wrecking bird traps and fixtures, I will try to band some birds next month.

*****SWM*****

GRAN QUIVIRA NATURE RECORDS

By George Boundey

The warblers are beginning their migration to the south-land. There is to be a big crop of juniper berries this winter, and that means many of the northern birds will winter here.

Almost every day seems to add to our crop of young rabbits but from the way the coyotes howl at night, I believe nature will soon establish a balance.

*****SWM*****

RANDOM PAPERS

THE MISSION GARDEN AT TUMACACORI

By the Boss

Tumacacori was first visited by Padre Kino in 1691 and from then until 1711 the missionary work in this district was under his charge. It remained under the Jesuit jurisdiction until 1767 when the King of Spain expelled the Jesuits from his dominions, and the Franciscans took charge of this chain of missions.

The San Xavier Mission, some 30 miles north of San Jose de Tumacacori, is still under the Franciscan charge and visitors are shown around there by men of that brotherhood. We have therefore thought it fitting if we laid a little extra stress on the Jesuit period of occupation at Tumacacori and left the Franciscans at San Xavier to stress the later period belonging more particularly to them as it does.

We are having a grand time with the Tumacacori Mission garden. It is a little space to the south of the new administration building, entered from an arcade of the building, surrounded on the north and west sides by the building walls and on the south and east by a garden wall.

Early in the construction of the new administration and museum building I had a hazy idea, suggested probably by some of the boys, although none of them seem to agree with it now, that we should.

PLANT LIST

TREES

Apple
 Apricot
 Cottonwood
 Date Palm
 Espalier Peach
 Fig
 Hazel
 Lemon
 Mesquite
 Mulberry
 Olive
 Orange
 Palo Verde
 Pear
 Plum
 Pomegranate
 Walnut

SHRUBS

Agave
 Castilian Rose
 Ceanothus
 Chamiso
 Cactus

SHRUBS (cont.)

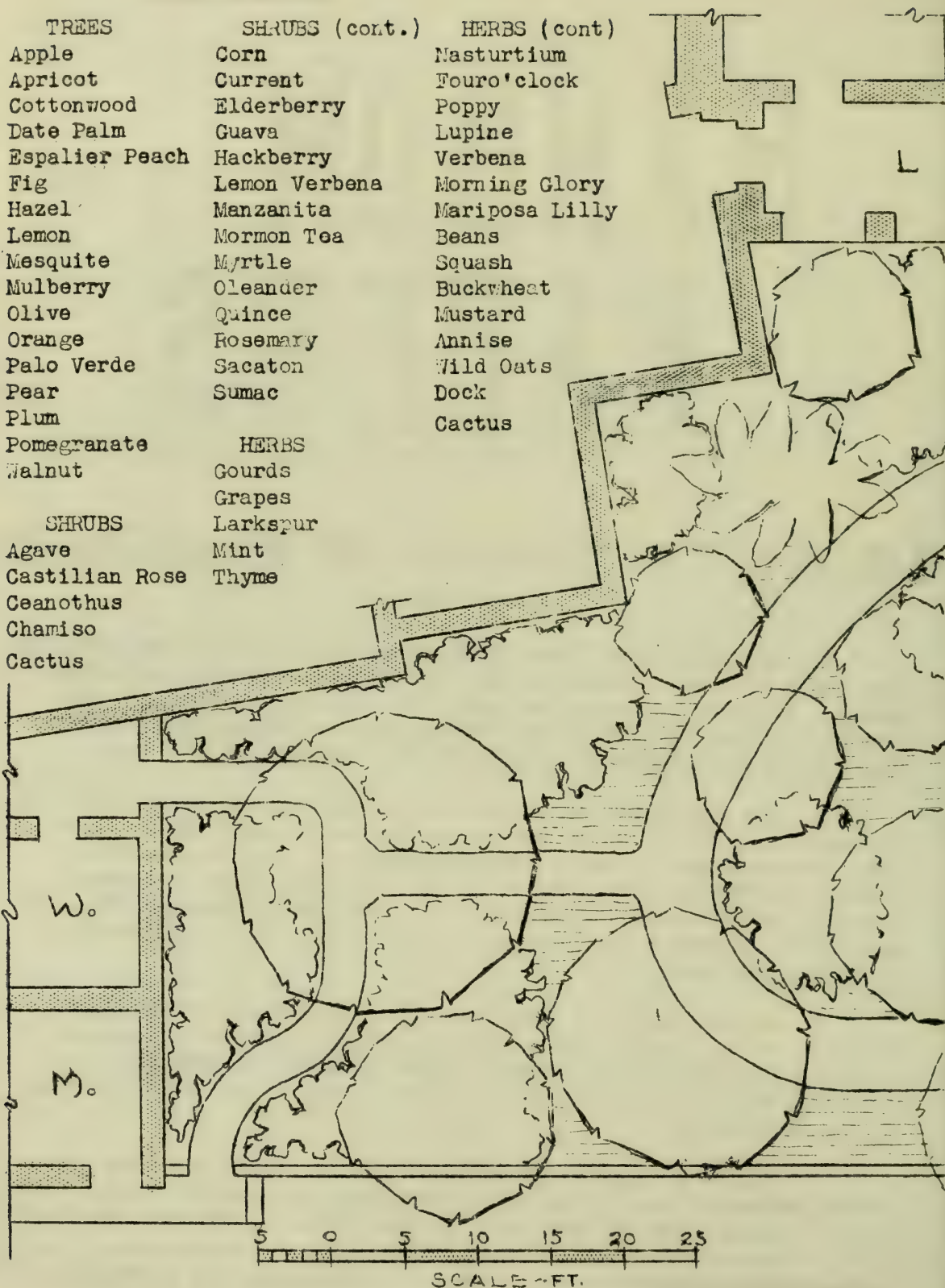
Corn
 Current
 Elderberry
 Guava
 Hackberry
 Lemon Verbena
 Manzanita
 Mormon Tea
 Myrtle
 Oleander
 Quince
 Rosemary
 Sacaton
 Sumac

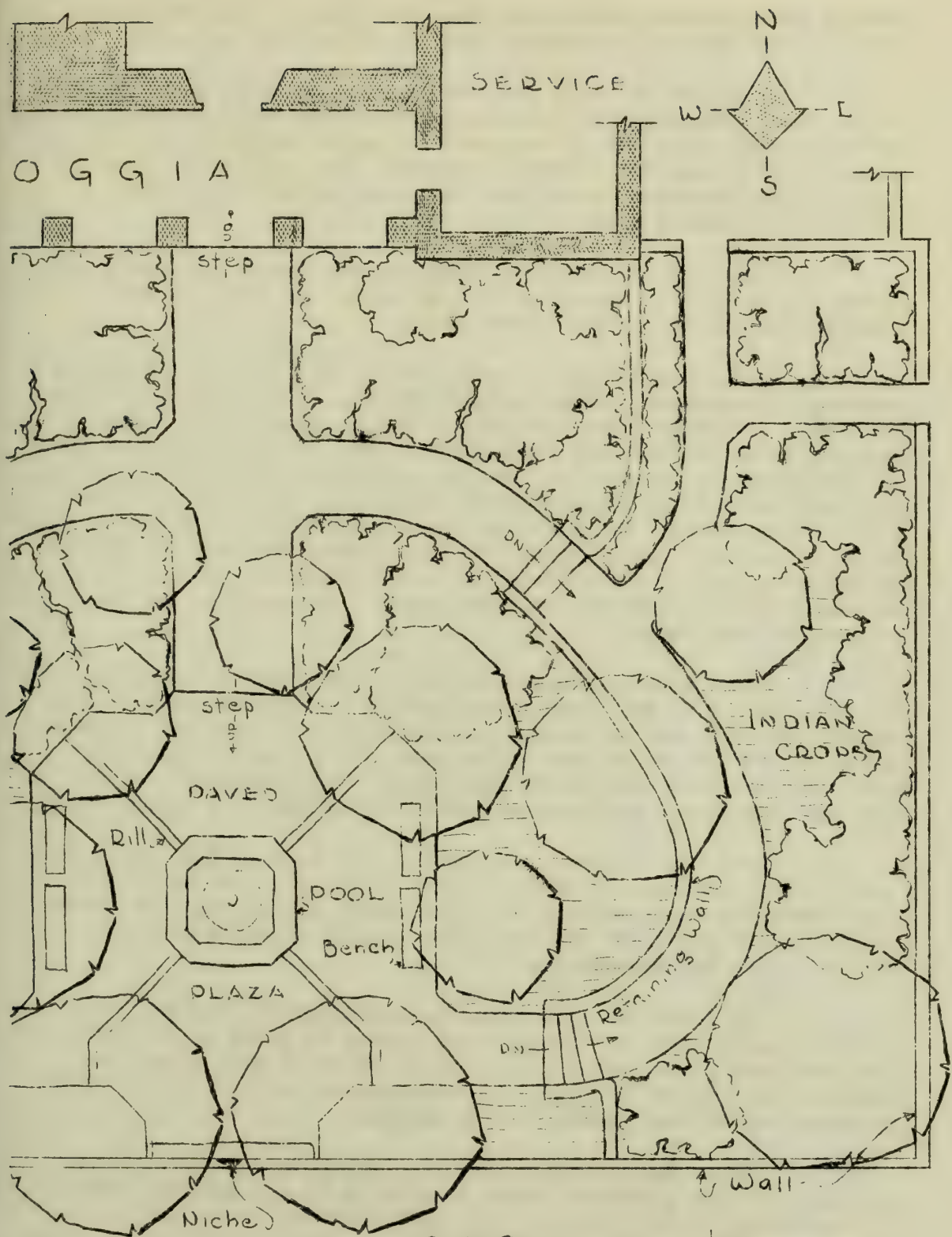
HERBS

Gourds
 Grapes
 Larkspur
 Mint
 Thyme

HERBS (cont)

Nasturtium
 Four o'clock
 Poppy
 Lupine
 Verbena
 Morning Glory
 Mariposa Lilly
 Beans
 Squash
 Buckwheat
 Mustard
 Annise
 Wild Oats
 Dock
 Cactus





C. D. CARTER 9/20/38

TUMACACORI GARDEN (CONT)

develop the planting inside this area as a part of the educational walk and talk we give the public when it visits this monument.

My theory was that when the people had arrived and gathered in the lobby of the administration building they would register, leave packages and coats if they wished, and be prepared for the guided trip through the ruins and museum. The guide would take them through the rear door of the lobby and out into the south arcade of the museum wing.

Here they would obtain their first view of the garden and, if we can bring it to the state of perfection for which we hope, they would exclaim over the charm of it.

With proper funds it would not be difficult to develop an ideal Spanish garden in this inclosed space. I have asked the boys to give us something more than that. I have asked them to keep the Spanish garden effect, but to so arrange the planting that our guide can step from the arcade out into the walk with his party and begin showing them some of the plants the Indians of this locality used for food, clothing, or shelter in the ancient days before the coming of the white man. Corn, beans, squash, gourds, the various fibrous plants from which cloth and cordage came, medicinal plants, and so on should all be shown and explained with a few words as to their preparation and usage.

These demands raised, at first, some cries of anguish. The educators said the visitor wouldn't be interested; that he came to see the ruins and he wouldn't be interested in visiting a garden before he saw the ruin; that a look into the garden in passing along the arcade to get to the ruin would be all he would stand and that this stuff would never have been planted in a garden anyway.

From the landscape standpoint, the boys said we would ruin their garden with this household truck which was never meant to be in a decorative garden; that it would be coming and going, some months it might look green and nice and other months it might look like something the cat brought in.

The point is, both these parties might be right. You never actually know what the tourist public is going to do until you have seen a few hundred or a few thousand of them doing it. However, we pointed out that if our scheme was a failure, it could be taken out of the picture easily enough.

Then, having driven the wedge this far, we said we also wanted, at other places a little farther on in the garden, examples of the trees, shrubs, plants, and herbs that had been introduced after the coming of the Padres so we could show how much this whole

TUMACACORI GARDEN (CONT)

country of northern Mexico and southern Arizona owed to this movement to save souls for it was not until after the Padres had pushed up on this frontier and found out, with their plantings, the quality of the soil and heard rumors of the metal in the mountains that the Government was willing to follow in and establish the presidio at Tubac long after Padre Kino's death.

The boys were mighty good about it in the end. After a due amount of protest, they promised me some corn, and beans, and squash, and gourds along with the olives and oranges and other things, and peace and harmony reign again over our offices.

I think, though, I asked for too much the other day when I asked them to design this garden, not as a Spanish landscaper in the old country would have designed it, which would have been almost perfect, but as a Padre, who didn't know any too much about landscaping, would have worked it out in the outer fringes of a frontier colony with the poor kind of labor that he had available. They were quite nice about that, too, didn't crown me with a drawing board or anything, just said I was screwy and what I wanted couldn't be done; asked me to give them an example of what I wanted if I thought it made sense, and so on.

Of course I have plenty of that so-called cab wit which always thinks up the answer on the way home from the party, so now I do have my example. The Padre architect who designed the Mission was more Padre than architect sometimes and in one of those moments when his architectural mind was asleep he designed a rib in the barrel vaulted roof of the sacristy which springs from a point over a doorway on each side of the room. It is wrong, not so much from the matter of strength, for the job has stood there well over a hundred years, but because the eye wants that rib to rest on something which will show strength, and there it stops in the air over an open doorway.

It is something akin to that which I want introduced into this garden if and when we build it, but it is still a tender subject and when I mention it Charlie and Tov. look at me with a saddened expression as though they were thinking that I used to have a good idea now and then and now look what I have come to.

I asked the boys to let me bring the plan, so far as it has progressed, into the Supplement (see pgs. 258-259) so you could all have a look at it and see what we are thinking about down here at headquarters, and maybe I had a fleeting idea that you would be on my side and drop a line telling me I am only half as crazy as these fellows think I am, and I assure you that would be crazy enough.

*****SWM*****

---AT TUMACACORI-- A GARDEN OR A BEANPATCH?

By J.H.Tovrea

It is rather a hard job to be commissioned to do a good job of executing a Spanish colonial garden which would look like someone did a poor job of building it. However, there is a point for argument when one states that the padre architect was a poor architect. The missions of North America are, as a whole, examples of sound construction and pleasing design, according to most authorities. If this is true, why should not their gardens have been executed in keeping with good Spanish colonial practice? Detail, of course, could be augmented by the personal taste of the padre designer or, perhaps, simplified to meet the limitations of unskilled labor.

Mr. Carter's plan of the proposed layout for the Tumacacori gardens is probably only one of many good solutions a problem of this kind has, so there is not much point in shopping around for more ideas. No doubt several individual landscape architects could design good layouts for the garden, all of which would be different, just as several **individual** architects might design different attractive houses for one site. It is believed that now that a good plan has been arrived at, we should all get together and push for its execution rather than attempt to revise and alter the plan by the addition of individual ideas.

One of the first questions which came up was; should the layout be formal or informal? Most of the mission gardens in California are quite formal. On the other hand the remaining fragments of the orchard and gardens of the Kino mission, San Ignacio, indicate a more informal treatment. This might suggest that the question was not a control point in the design. The layout could be either formal, informal, or a combination of both, depending on which type lent itself best to the appearance of a specific garden.

At Tumacacori the area is medium sized, measuring 117 feet in length and averaging 50 feet in width. The shape is not rectangular, as one corner is broken into by the irregular lines of a portion of the museum building. This irregular boundary and small area probably invite an informal design, at first glance. It was decided by all concerned to have a pool somewhere in the patio and it was also believed that this pool should be the point of interest of a vista from the museum, loggia or arcade. In order to make this vista as long as possible, the fountain or pool was placed against the extreme south patio wall on an axis thru the entrance of the Kino room. A wide brick-paved walk runs straight from the arcade to the fountain and around it. Simple wood benches will be placed at points shown on the plan. The fountain would serve primarily as a distribution reservoir for irrigation. Four brick-lined troughs lead from the fountain across the plaza

AT TUMACACORI (CONT)

and distribute water to the different sections of the garden. Secondly the fountain provides a typical architectural detail and the sound of running water, so essential to the Spanish Colonial garden. Potted plants will add to the native appearance of the plaza and fountain as well as the loggia. This part of the layout is formal but the informal planting will give it an informal appearance.

On each side of the main brick-paved walk is an informal loop walk--starting from the main walk and looping back to the fountain. The visitor in making this informal circuit will see the entire garden. These paths will be gravel surfaced probably.

The extreme east end of the patio is from one and one half to two feet lower than the rest of the garden. The terrace wall follows the irregular line of the loop walk. Brick steps are provided at the two points where the walk crosses the terrace wall. In this portion of the garden, well hidden from most points of view, corn, beans, etc. may be planted. (This will be interesting if for no other reason than the fact that corn and beans were planted in a Spanish Colonial garden. Since the produce to be derived from said corn and beans will be government property, it is cautiously suggested that the first hundred visitors of each season be given one kernel of corn and one bean as a concrete testimonial to the fact that the injuns did raise corn and beans--in spite of the landscape and educational divisions.)

It is believed by everyone who has looked over the plans (including the "Corn and Bean Dept.") that Mr. Carter has a very satisfactory plan and it is hoped that every effort will be made to raise funds to complete this necessary element of the museum layout. Eight hundred to a thousand dollars should be sufficient to construct and plant the job. However, if the grading, walks and fountain could be done as one job, the planting could follow as funds were available. Tumacacori now borders on the edge of being a 100% complete unit--not counting needed stabilization. A few thousand dollars would finish up the remaining jobs.

*****SWI*****

FROM THE VISITOR'S ANGLE

By the Boss

We have a number of people who are part of the Southwestern family and come around to see us every year or two. We are considering providing these folks with some sort of badge showing that they belong to the F.C.V. or First Class Visitors.

Among these First Class Visitors, we rate Doc Halladay who has been drifting around among the Southwestern Monuments these several years. He generally writes me a report at the end of the season and, as in this case, he doesn't pull his punches when he finds an opening.

Here's Doc:

Dear Boss:

When to my regret I finally arrived home. I say regret, for if the personal budget had not run out I could still be roving around the Southwest for the very good reason that I enjoy it more than I do work. Following I will give my annual report which this year will be a little longer than the mere acknowledgment of your hospitality and my own pleasure of seeing you again.

The trip this year was planned to include some of the monuments I had not seen and some of the old ones where I wanted to observe the changes, if any, so they will be listed in the order of their visitation.

Capulin Mountain.

Road from Raton modern and in fine shape. Made the trip on the eighth of August. A party from Texas was at the top when I arrived and it was their second visit. The road up the volcano was in good shape but could be better. I inquired for Homer Farr, but he could not be located. I am in favor of placing a permanent tablet of some sort at the turnaround on top that will briefly give the information about the volcano.

Dale and the boys have a wayside shrine project for the top of Capulin in the back of their minds, Doc, but it will be some time before we can actually get to it. As well as describing the volcano, we want to call attention to the fact that from the top parking area you can see the site where Folsom Man was discovered.

The road was not so good because of lack of funds, Doc,

FROM THE VISITOR'S ANGLE (CONT)

we get only a little dab to maintain it. Homer wasn't on duty for the same reason, lack of funds. We have never had a full paid salary there.

Here's Doc again!

Camped at Eagle Nest that night and nearly froze to death. On the next day visited Taos and then on to Puye. It seems to me that this should be a part of Bandelier with a good connecting road. Bandelier is the older of the two, but there must be an interesting story connecting them. I think visitors should see both and make the comparison.

We check with Doc. on joining Puye and Bandelier, but Puye happens to be on an Indian reservation and the Indians prefer to keep it under their own jurisdiction and charge an entrance fee which goes into the tribal funds. We, therefore, can do nothing about joining the Puye to Bandelier and, if the Indians are making money out of Puye, it is all right with us.

Here's Doc again:

Bandelier.

Arrived a little late and had to catch up with McNeil and his party. Enjoyed the trip and especially the climb to the kiva. The road to the monument needs some improvement and more frequent markers, especially coming down from Espanola to Puye and then to Bandelier.

Expected to meet Harkins there, but he had Hugh Miller out someplace and they fooled around too long for me to wait for their return.

Gran Quivira.

Visited on August 11 and, anticipating luncheon there, was prepared to eat at the monument but was driven to cover by a heavy shower. Young Bill Boundey, in the absence of George, loaned me the garage for the time and had lunch there. I hope George got the cartons back in place after I knocked them all down trying to get into the place. Finally gave up and parked the car outside and carried the lunch in using the boxes for table and stool.

That Chick Sale edifice was not intended to be used during a rain; the roof is very much incomplete and a shower bath is included free. It was not Saturday night and was not fully appreciated at the

time. George had gone for little Bert who was being dismissed from the hospital that day, but Bill showed me around and was a very good substitute. This monument deserves some improvements. There should be a shelter for visitors and proper rest rooms. This monument needs a museum and the walls need attention in some places or they will soon be in as bad condition as Abo, which I visited earlier this same day. When the road is made passable to Carrizozo, this monument will get a lot of visitors from 66 down to the Sands and Cavern, and you will have to get ready for them. This is a fine monument.

White Sands.

For five years I have been trying to catch Tom Charles at home. This year I did, and had a fine little visit with him and his wife. The unit out there is going to be ideal, but I am afraid that as time goes on you will have to add a hot dog stand, for the trade is going to demand it. With a short stop at a place to get a cold drink, with a good salesman behind the counter, a lot of the discomfort of the heat through there would be forgotten, and the "Dude" would leave with a much better impression of it.

Tom met all my expectations, and I am going out there again sometime and have another talk with him about his visitors. The day I was there he had them up past the million mark and seemed to think that a very conservative estimate.

Note that here I finally found a custodian on the job.

After roving around to the Cavern and back via El Paso, I took a day off to run up to Beaver Head Lodge, near Alpine, to see Frances. I afterward returned to the southern part of the state and drove over Onion Saddle to Chiricahua.

Personally, I think it would be advisable to erase that sign which directs visitors to the monument by that route. I think I will append a note on what it costs a visitor to do these monuments, and you will see why. I mentioned this to you when I saw you and Hugh at Headquarters, but I want it down in writing too. That trip over the Saddle was more than the

FROM THE VISITOR'S ANGLE (CONT.)

ticket called for and it took too much time and disposition; I was not in the best frame of mind when I first saw the monument. Driving up the canyon, I was late and was told Frank Fish was over across the creek playing ball with the CCC boys. The road over there was not built for low-hung cars, and so I ventured just so far, turned back, and missed him.

I camped at the farm or ranch near there, and think this service could be improved also.

Note: Doc. is not talking about the Faraway Ranch run by Ed. and Lillian Riggs.

It looks to me that if preservation is your major policy, some of the money being spent at Chiricahua could be spent better on some of the other monuments. I don't think anyone will run off with very many of the rocks there, and I would like to see some of that road money spent on Tonto and, perhaps, on some of the other places where the cost to the visitor in time, money, and disposition would be reduced.

No "road money", as such, is being spent at Chiricahua, Doc. All of our road improvement, construction of buildings, etc. is being and has been done with the CCC camp. We have no money to transfer to Tonto and if we transferred the camp up there, a 200 man camp could build nothing but a "truck trail" under the present regulations which would be a terribly inefficient job. We are not building a road at Chiricahua, Doc., we are simply trimming up and back-sloping an incomplete road which was turned over to us with the monument from the Forest Service.

Tumacacori:

Louis was away on his vacation making five custodians away from their monuments thus far out of six visits. I am certainly pleased with the things that are being done at Tumacacori. The past six years have shown some big improvements here. The whole set-up is O.K., but I did want to see Louis. Will get him another year.

Note: Frank Fish was on his monument but off duty, Doc. having arrived after 6:00 P.M. Cy. Harkins was on his monument, but busy away from headquarters, Doc.

Casa Grande:

The bull session with you and Hugh took up so

FROM THE VISITOR'S ANGLE (CONT)

Much time that I will have to read the report to know what is going on there. This spot is somewhat familiar to me and I believe you said that no major changes had been made. I do want to see a diorama or miniature of the ruins used in the museum at Casa Grande, so it will be more clear in the 14 year old mind of most of the visitors. I don't believe that the majority of them fully appreciate it.

It was a real pleasure to see you looking and feeling so well and to know that Mother Pinkley had lost her first tooth at 77; she will soon be ready for her second set or permanent teeth, won't she? I forgot to tell her that I hope she will have no trouble cutting them.

Tonto.

Richert was IN. I had a very enjoyable trip to the ruins, and Roland provided a little thrill by having his pet centipede make a personal appearance near Inspiration Point. I still think a kiva should be around there someplace, else where did the men go to have a little game of poker where the women folks could not bother them?

Make that road up to the ranger's cabin a better one and the custodian will have more time to tell about the ruins and will have to use less in excusing the approach.

This visit was the last on my list that would be of any interest to you. I doubled back to Globe and took Highway 60 to Showlow and a few miles east cut over to Concho and St. Johns; all a fine road and through beautiful country. A little cold for me at night, but fine traveling. Made a short stop at Zuni to see Wallace and then on to Mesa Verde to see the folks there.

Of course, Jesse Nusbaum and Paul Franke were both out of the park, but Don Watson and the others were on the job and I had a little visit with each. The museum there is about perfect, but the Mesa is getting to be a little too modern and there is no thrill at all to driving the Knife Edge or any of the other roads up there that a few years ago made funny, creepy feelings up and down your spine.

Wolf Creek Pass has been flattened out for the

FROM THE VISITOR'S ANGLE (CONT)

plains farmers and is now four cars wide and a high gear road. After all, I guess I enjoyed the Onion Saddle more than I thought at the time, for it is nearer the old type of mountain road and perhaps we had better leave it the way it is, so we can have one drive where we have to back up to make the turns now and then.

It was a swell trip this year and the hour and a half at Headquarters was worth the 5,000 miles of driving.

Two more items and you can rest.

In having fun with statistics, let us have some figures on what it costs the visitor to see some of your monuments. I know it costs the Government about seven dollars per head to entertain them at Mesa Verde, and I wonder what it costs the visitor? How where at the Ruins cost the visitor only about 15 cents and an hour of time off the main highway. Figure that against some of the others and see what you get and why. Do this for your home work this winter.

Maintenance, Improvement and New Construction.

I suggest that you get a machine for binding the reports that has a little longer reach. I have to take a darned needle and twine and rebind nearly every report. The present short staples do not clinch and when I get half way through I suddenly find the whole thing apart in my hands.

Give my best to Hugh and the rest of the gang and, as usual, it was a real pleasure and a privilege to see you again. Tell Mother Pinkley to see her dentist twice a year now that her teeth have begun coming out.

Your No. 1 "Dude."

Doc. Haladay.

*****S M*****

NAVAJO NAME FOR CHACO'S ROCK

By Neil M. Judd

In your monthly report for July, 1938, page 80, you ask whether I think the detached cliff back of Pueblo Bonito should henceforth be known as "Braced Rock" or "Propped Rock". Either is preferable to the name you have been using, but both fall a bit short of completeness in translating from the Navajo.

Throughout the entire reservation Pueblo Bonito is known as tsě'biya hani á'hi ("A Vocabulary of the Navaho Language." Franciscan Fathers, St. Michaels, Arizona, 1912.) The same designation identified Richard Wetherill's adjacent trading post, 1895-1910, and the local post office, Putnam (after the late Frederick W. Putnam.)

Now the significant point in the Navajo name, as explained to me by Mrs. John Wetherill at Chaco Canyon in 1921 and subsequently by two of my old Navajo neighbors, is the manner in which the cliff is braced. It is not propped from the front, back, or side but is braced up from beneath, alluding to the several pine posts which the Bonitians set under the west end of the cliff and most of which had been cut away with steel axes long prior to my studies. An Indian unable accurately to express himself in English, or an interrogator less familiar than Mrs. Wetherill with the Navajo language, might miss this fine distinction. The cliff is braced up from beneath. Thus, Pueblo Bonito, named by the Navajo long before colonists from the Rio Grande ever heard of it, was distinguished from all other southwestern ruins. As "Braced Rock" or "Propped Rock" conveys the idea only in part so, also, does the abbreviation I have repeatedly used, namely, "Braced-up Cliff." Depending upon subject, "tse" may mean either cliff or rock. If we were to strive less for economy with printed words, I am reasonably sure we would insist upon designating the detached cliff back of Pueblo Bonito by the more accurate translation: "The Cliff-braced-up from beneath."

*****SWM*****

RUMINATIONS

In which the Boss reports upon another Taurian Session.

It being Labor Day, and nothing rushing on hand, four of us gathered in our office and started a taurian session which lasted about three hours. As usual, it seemed they were all out of step but me, and before we finished they had me buried under tons and tons of accumulated evidence, but still kicking.

It was an old argument to the home folks, but Doc. was visiting us from afar and he unintentionally started it anew and we went over the ground again. It had to do with closing the Montezuma Castle in order

RUMINATIONS (CONT)

to preserve its ancient walls from the vibrations of traffic, in the first phases, and then it ran off into man-made exhibits in museums versus the real stuff.

Doc. presented the thesis that protection is our foremost duty; that these monuments are put under our charge to be protected so that future generations may enjoy them; that showing visitors through ancient ruins destroys the ruins in direct proportion to the number of visitors shown through: ergo we must not let visitors go through the ruins so that we may save the ruins so that future generations may not let visitors go through the ruins so that they may save the ruins so that*****. It is an old argument which runs back some thirty-odd years since I have been dealing with southwestern archaeology and when I first met it in those days it had some gray hair around the edges. As I said in these pages a couple of months ago, we are planning an experiment along this line at Betatakin Ruin as soon as we get the proper authority, but we are doing it with a good deal of fear and trembling and with nothing like the assurance that Doc. thought we ought to use.

Our theory in this is that posterity has never done very much for the present generation and when we ask the present generation to refrain from looking into some ruins so that posterity may have some ruins to ask their present generation to refrain from looking into, this present generation of ours may bow up and allow that if they are putting up the money for all this super-protection, they are, by George, going to get a little value out of their money by taking a peek at the ruins themselves, wear or no wear. Thus we who are giving what protection we can, the practical protectionist, if you will allow the term, might find ourselves in what is often alluded to as a pretty pickle with a flock of telegrams going to various Congressmen and official heads wanting to know why the senders were being taxed to protect a ruin for future taxpayers and so on, without being able to see the ruin themselves.

I asked Doc. how we were to handle this situation, and he said the thing to do was to build a model and show the visitors the model. Spend two or three thousand dollars on your model and make it precisely like the ruin only make it so you can dismount it and show the visitor the inside. "This," he said, "will do just as well or better than taking them through the actual ruin." Then he told me that a certain museum man is proud of the fact that more than 80 per cent of his collections were back in storage and his museum is made up of dioramas, flat work, pictures, labels, etc. The idea behind this seemed to be that the less actual artifacts of the ancient people we can show the visitors, the better museum we will have and the better pleased the visitors will be.

RUMINATIONS (CONT)

Now I have my grave doubts about this. Speaking from my limited experience of handling visitors in Southwestern monuments and Southwestern museums, I should say the visitor should be shown original ruins and original artifacts with whatever labelling and dioramas may be absolutely necessary to help him understand the story of your monument, the life of the people who were connected with it, if it be historic or prehistoric, and its national significance. Doc. and the boys could have talked another three hours without convincing me in the least that the model of the Castle was just as good for the visitor as a trip through the Castle itself. If that be the case, why not make a model, very precise and on a good sized scale, for the future generation to enjoy and then quit worrying about them. Another small bit of evidence which has convinced me that the visitor wants to see the real ruin and not a model, is that in my time I have come across several of these ultra-conservationists and have noticed that they always want to keep all other visitors out of the ruins, except themselves. Have you ever noticed that? One man, upon being warned that we might close all ruins in a certain canyon to all visitors, instead of applauding the idea and saying he would be glad to comply with such an order if it were issued, said that it was a fine idea to keep the public out and he, being a friend of the Secretary, could, he supposed, get a permit to enter without much trouble. Does that prove my point?

As good as your diorama may be, I doubt if it can be as good as the real thing. If it were, we could put on our mountain climbing clothing, go to the museum and stand before a diorama of mountain climbers working their way up an intricate cliff climb, and come back all tired out and with quite a sun burn. But you can't do it, at least the sun burn.

I am surprised at the number of men I meet in this museum game who don't appreciate the human reactions to their stuff. They want to use a map of the world with New York and Paris shown in blue; they want to develop the history of the airplane since the Wright boys first took off, down through all the models; they want to show an exact model, built at large expense, of a certain plane; and then they can't understand why the fool public goes to the original plane hanging in the National Museum and stands open mouthed before that lot of metal, wood and canvas which a certain tousle-headed boy picked off of American soil and a little later set down in Paris; whereas, their exhibit is much more complete and their model cost more money than the real plane.

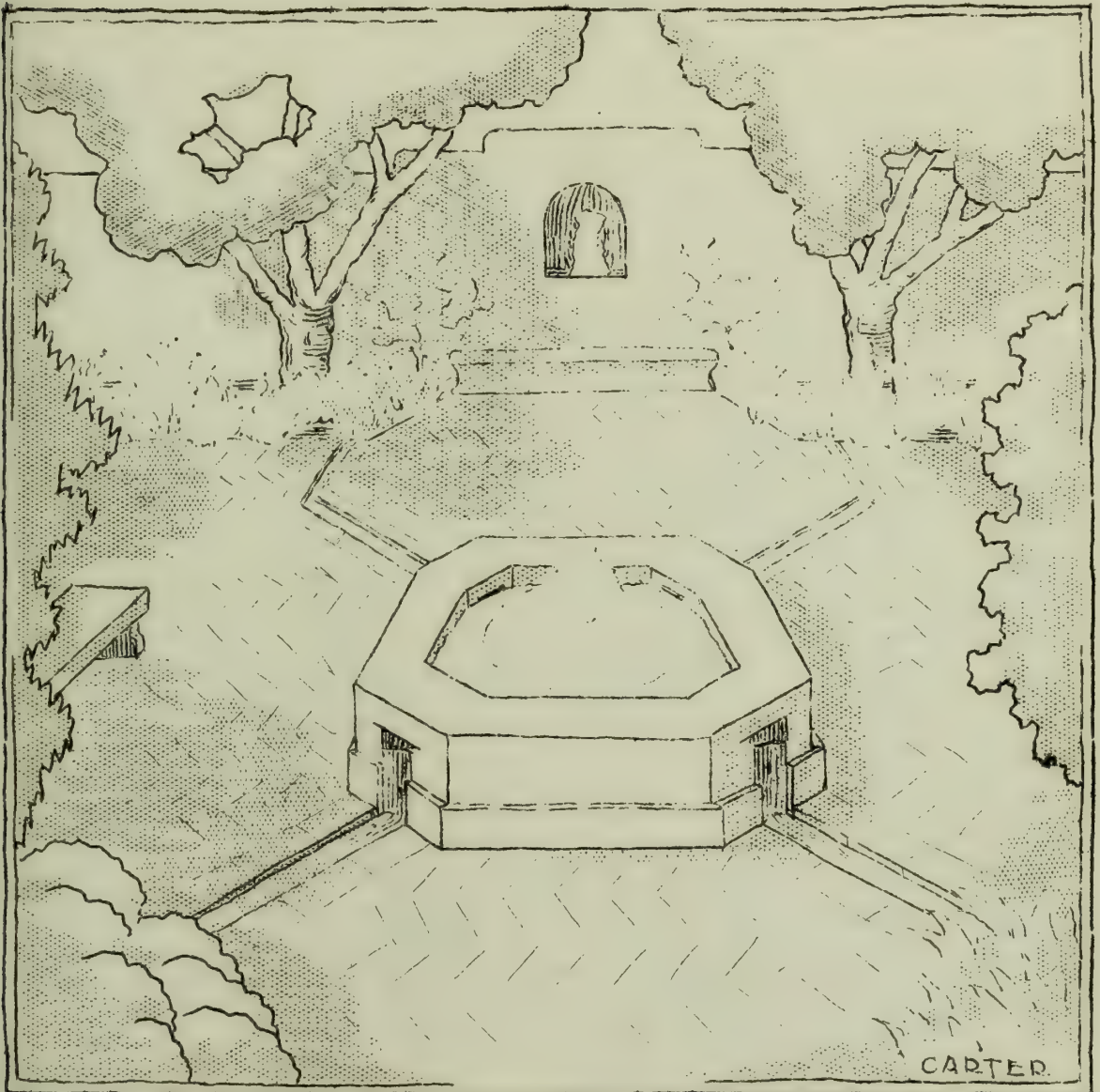
We hear much talk and much humor is spilled over the old fashioned museum of five or ten years ago where many artifacts were displayed in a rather heterogeneous manner. On the other hand, Mary and I were just remarking the other day, as we left our modern, up-to-date, streamlined, ball-bearing museum (still incomplete) at Tunacacori, what a catastrophe it would be if we happened to run across Padre Kino's

RUMINATIONS (CONT)

original well-worn robe; it would certainly look pretty worn and dingy and there would be no place in the museum to put it; it would be a sort of different note which would not harmonize with the well-studied exhibits as they stand.

Anyway, twelve o'clock came along and broke up our taurian session and we never did come to any definite conclusion.

The Plaza



GARDEN AXIS ~ TUMACACORI

SOUTHWESTERN MONUMENTS

MONTHLY

REPORT



OCTOBER - - - 1938

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

SOUTHWESTERN MONUMENTS

OCTOBER, 1938, REPORT
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SOUTHWESTERN MONUMENTS PERSONNEL

HEADQUARTERS: National Park Service, Coolidge, Arizona.

Frank Pinkley, Superintendent; Hugh M. Miller, ass't. superintendent; Parke W. Soule, chief clerk; Dale S. King, ass't. park naturalist; Charlie R. Steen, jr. park archeologist; Matt W. Dodge, jr. park naturalist; Luis A. Gastellum and Robert Petrie, clerk stenographers; Ira G. Goodwin and Larry Mungerro, CCC clerks; F.T. Stonehocker, machinist; J.L.L. Baehr, utility man; Teddy Savage, machinist helper, CCC; Victor Scholz, mimeograph operator, CCC. DETAILED FROM REGION III: J. H. Tovrea, ass't. engineer; and Charles D. Carter, jr. landscape architect.

FIELD STATIONS -- POST OFFICE -- PERSONNEL -- 1938 VISITORS -- ACRES AREA

1.	<u>ARCHES</u> ; Moab, Utah; Harry Reed, custodian	1,448	4,520.00
2.	<u>AZTEC RUINS</u> ; Aztec, New Mexico; T. C. Miller, custodian; J. W. Brewer, Jr., park ranger	20,214	25.38
3.	<u>BANDELIER</u> ; Santa Fe, New Mexico; C. G. Watkins, custodian; Geo. Sholly, grader operator; 3 guides and helpers, CCC	14,319	26,026.20
4.	<u>CANYON DE CHELLY</u> ; Chum Lee, Ariz.; John Will Farris, custodian	1,573	83,840.00
5.	<u>CAPULIN MOUNTAIN</u> ; Capulin, N.M.; H. Farr, custodian	30,200	630.37
6.	<u>CASA GRANDE</u> ; Coolidge, Ariz.; A. T. Bicknell, custodian; Don Eggenwer, ranger; J. Rodgers, S. Coyle, and G. Snodfield, guides, CCC	33,731	472.50
7.	<u>CHACO CANYON</u> ; Chaco Canyon, N.M.; Lewis T. McKinney, custodian	6,271	21,512.37
8.	<u>CHIRICAHUA</u> ; Douglas, Ariz.; Frank Fish, custodian H. Bennett, Wm. Stone, H. Minton, guides, CCC	9,145	10,694.80
9.	<u>EL MORRO</u> ; Ramah, N.M.; R.R. Budlong, custodian	3,208	240.00
10.	<u>GILA CLIFF DWELLINGS</u> ; Cliff, N.M.; no custodian	105	160.00
11.	<u>GRAN QUIVIRA</u> ; Gran Quivira, N.M.; G. Boundey, custodian	3,113	610.94
12.	<u>HOVENWEEP</u> ; Cortez, Colo.; T.C. Miller, Aztec, N.M.	168	285.80
13.	<u>MONTEZUMA CASTLE</u> ; Camp Verde, Ariz.; E. Jackson, custodian; Edwin Alberts, park ranger	10,645	520.00
14.	<u>NATURAL BRIDGES</u> ; Blanding, Utah; Z. Johnson, custodian	741	2,740.00
15.	<u>NAVAJO</u> ; Tonalea, Ariz.; John Wetherill, custodian	411	360.00
16.	<u>ORGAN PIPE CACTUS</u> ; Ajo, Ariz.; no custodian	6,200	330,670.00
17.	<u>PIPE SPRING</u> ; Moccasin, Ariz.; L. Heaton, custodian	2,245	40.00
18.	<u>RAINBOW BRIDGE</u> ; Tonalea, Ariz.; no custodian	222	160.00
19.	<u>SAGUARO</u> ; Tucson, Ariz.; Carleton Wilder, ranger	20,422	63,234.00
20.	<u>SUNSET CRATER</u> ; Flagstaff, Ariz.; D. Jones, ranger	6,922	3,040.00
21.	<u>TONTO</u> ; Roosevelt, Ariz.; no custodian	4,985	1,120.00
22.	<u>TUMACACORI</u> ; Box 797, Nogales, Ariz.; L. Caywood, custodian; Ted Cronyn, park ranger	15,289	10.00
23.	<u>WALNUT CANYON</u> ; Flagstaff, Ariz.; P. Beaubien, jr. archeologist; C. Leffler, T. Maloney, S. Cataldo, and R. Beishline, CCC guides	13,526	1,873.00
24.	<u>WHITE SANDS</u> ; Alamogordo, N.M.; Tom Charles, custodian; Joe Shepperd, grader operator	110,805	142,987.00
25.	<u>WUPATKI</u> ; Flagstaff, Ariz.; D. Jones, park ranger	2,754	35,865.00
26.	<u>YUCCA HOUSE</u> ; Cortez, Colo.; no custodian	172	9.60
<u>TOTAL FOR 1938;</u>		1,143.35 square mi.	319,164 . 731,747.46

OPENING

By Superintendent Frank Pinkley
Southwestern Monuments
Coolidge, Arizona

The month of October was a good one in point of weather and the roads were, generally speaking, in good condition for travel. While our figures show a greater attendance than last year, an analysis will show that at monuments where our figures are most accurate, there is little change.

While I look for an increase in travel in the Southwest this year over last on the basis of the recent business revival, I do not yet have proof of it. Arizona and New Mexico papers are, however, full of the news of heavy reservations at the winter resorts and dude ranches.

We needed five more permanent men on duty last month than we had on our rolls. I don't know what we are going to do about the undermanned situation at Tuto Bands. At present things are wide open except on Sundays and holidays when our part-time custodian is on duty. Our new headquarters buildings are reaching the finished stage and, as soon as the transfer papers come through, we are sending a man in to take charge. He will be so swamped with visitors that I cannot see how he can do more than stand on the office steps and pass out leaflets and give instructions to the 125,000 people who are coming to see his monument next year. On his days off, I suppose we will have to practically shut the plant down. We need three full-time jobs to handle the public with any degree of satisfaction to the public or ourselves, and we have only the one.

Our three CCC camps, our Casa Grande side camp, and the Mobile Unit at Chaco Canyon were operating satisfactorily during the month, although at two of our camps we could get much more efficiency with a little more funds for operation. We need more materials money.

During the month we had a meeting with representatives of the Branch of Plans and Design, and developed the plans for our six residences and one administration building which we are getting under Public Works money, and they are now putting in overtime getting out the working drawings for us. As soon as we can get those, we will be ready to go and we think we can get into action with the funds, the weather permitting, by the first of January. Three of these places, Navajo, Wupatki, and El Morro, are remote from the railroad and winter construction is going to be slow.

Financially we are solvent in that we did not expend as much of our funds as we had thought we would need in the first quarter of the year and are thus a little ahead of our estimates.

OPENING (CONT.)

Among the personnel the morale seems to be high and service during the past month to the public was good.

James W. Brewer, Jr., is transferring at the end of the month from Aztec Ruins to Navajo National Monument, thus filling the position left vacant by the transfer of William Leicht from Navajo to the Boulder Dam Recreational Area.

The office force has been hard pressed to keep abreast of its work during the month. I don't know how we are going to give annual leave without going behind very seriously in the office work. It must be remembered that we have no winter slump in office work such as comes to many of the units of the Service; it seems as if we are always on the peak of production with a few deadlines just ahead. Chief Clerk Soule effected a complete rearrangement of the office furniture and equipment during the month, gaining space and improving the lighting on the desks. He also put about \$300 worth of steel shelving in the files-and-storage room, doing away with the old lumber shelving, and thus gaining some space and eliminating the fire hazard.

When considering the plans for the two new residences at Montezuma Castle, we developed a plan of using the present house, when it is vacated, as an administration building until the final administration building as shown on the Master Plan can be built. The present building is well situated for the purpose, being in the center of the parking area, and will need little overhauling to put it into use. It will advance our educational program at the Castle several years and relieve us from certain obligations to the Utility Operator whose room we are now using. We will have an official office, a good sized museum room, work room, storage room, and some basement storage for tools and light equipment under this arrangement.

Study has started on the preliminary lines run by the Bureau of Public Roads from State Highway #89 over to Wupatki Ruin in the Wupatki National Monument. Agreement seems to be reached except as to going north or south of Doney Mountain. We would like to go to the north to develop a wonderful view of the Painted Desert but the cost is high. The Bureau has agreed to study that section a little more and see if their estimates can be reduced. Studies have also been made at Chaco Canyon National Monument with a view to relocating headquarters away from the vicinity of any of the ruins, getting a better crossing of the Chaco, and throwing the road within the monument away from all ruins. Reports have been made to your office on these preliminary studies.

On the whole, the month has been satisfactory.

Cordially,

Frank Pinkley

CONDENSED REPORT

IN WHICH HIGHLIGHTS OF THE MONTH ARE GIVEN



Coolidge, Arizona,
November 1, 1938.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

The Condensed Report for the month of October, 1938, follows:

	October 1938	October 1937	October 1933	Visitor Yr. Oct. - Nov.	Visitor Yr. To Date
TRAVEL:					
Station					
Archæ.	55*	80	---	55	55
Aztec	1,349	882	815	1,349	1,349
Bandelier	613	933	728	613	613
Canyon de Chelly.	131	149	119	131	131
Capulin Mountain.	5,100*	1,100	400	3,100	3,100
Casa Grande	2,471	2,482	2,190	2,471	2,471
Chaco Canyon.	403	391	732	403	403
Chiricahua.	484	727	690	484	484
El Morro.	274	196	169	274	274
Gila Cliff Dwelling	10*	15	---	10	10
Gran Quivira.	259	198	159	259	259
Hovenweep	10*	---	---	10	10
Montezuma Castle.	601	734	499	601	601
Natural Bridges	91	109	65	91	91
Navajo.	50*	70	---	50	50
Organ Pipe.	900*	900	---	900	900
Pipe Spring	268	67	89	268	268
Rainbow Bridge.	20*	56	---	20	20
Saguaro	1,300*	1,500	---	1,300	1,300
Sunset Crater	447	1,000	287	447	447
Tonto	274*	250	217	274	274
Tumacacori.	916	801	808	916	916
Walnut Canyon	964	841	758	964	964
White Sands	6,720*	6,843	5,979	6,720	6,720
Wupatki	230	85	155	230	230
Yucca House	30*	50	---	30	30
TOTALS	21,970	20,459	14,859	21,970	21,970

*Estimated

CONDENSED REPORT (CONT.)

Anticipated decreases in the number of persons visiting the various stations of the Southwestern Monuments were realized during October as the autumn "between seasons" period was ushered in. Only Casa Grande, Gran Quivira, and Pipe Spring, of the monuments where accurate travel records are possible, showed increases over September. As compared with October, 1937, approximately 1,500 more persons visited our areas. This slight increase, in view of the large number of stations where no visitor counts can be made, is not worthy of consideration.

000 GENERAL

010 Matters of Unusual Interest or Importance

Montezuma Castle: Need of bracing to prevent fall of ruin walls is becoming increasingly evident (see p. 302).

Natural Bridges: A well-preserved skeleton was found (see p. 322).

020 Weather

Killing frosts have occurred at the majority of the northern stations during the month. Snow flurries are reported from Chaco Canyon and the San Francisco Peaks region. In general, the weather has been pleasant over both northern and southern areas.

100 ADMINISTRATIVE

123 National Park Service Visitors

Aztec Ruins: L.T.McKinney, Mrs. Ruby Warheim, and Gordon Vivian.

Bandelier: Hugh Miller, Chas. Gable, A.H.Montgomery, Larry Miller, Jack Diehl, Chas. Richey, S.S.Kennedy, and M.F.Christensen.

Casa Grande: Jack Haile, Al.Kuehl, Ted Cronyn, and R.Lattimore.

Capulin Mountain: Hugh Miller and Jack Diehl.

Chaco Canyon: Dale King.

Chiricahua: Al Bicknell, Jack Haile, Al Kuehl, C. Carter.

El Morro: A.W.Shirley, Jack Diehl, L.T.McKinney.

Gran Quivira: Jack Diehl.

Headquarters: Jack Haile, Bill Stevenson, Ted Cronyn, Carl Wilder, John Cook, and Al Kuehl.

Pipe Spring: C.N.Gould, W.B.McDougall, H.Cornell, Al Kuehl, E.D. McKee, and Harold Hawkins.

Walnut Canyon: Al Kuehl, Harry Langley, C.N.Gould, W.B.McDougall, Jack Haile, H.Miller, D.King, C.Amsden, and J.H.Tovrea.

Wupatki: Al Kuehl, Harry Langley, and Dale King.

White Sands: Milton Swatch, Chuck Richey, C.F.Gurner, Hub Chase, Jack Diehl, Ray Higgins, and Charles Gable.

140 Labor Situation

Aztec Ruins: The summer was one of prosperity for fruit growers.

Chiricahua: The rise in copper prices has benefitted miners (p.295)

150 New Equipment

Casa Grande: A four-drawer filing cabinet and four sections of a sectional bookcase have been added to the office (see p. 310).

Chaco Canyon: A new water pump was installed and a new Ford pick-up replaced the old car which was returned to headquarters (p.304)

CONDENSED REPORT (CONT.)

Headquarters: Completion of cabinets and their installation on the new museum truck put it in condition for use (see p. 328).

170 Plans, Maps, and Surveys

El Morro: A survey to establish the approved buildings and road is underway (see p. 317).

Wupatki: A topographic survey of this monument and Sunset Crater has been carried on during the month (see p. 290).

180 Circulars, Placards, and Publicity

Bandelier: The custodian gave a 15 minute talk over Radio Station KOB at Albuquerque, New Mexico, October 6 (see p. 298).

Canyon de Chelly: An article on Mummy Cave was carried by the last issue of Natural History Magazine (see p. 327).

Casa Grande: July "American Roofer" published story (see p. 327).

Headquarters: Three illustrated talks were given (see p. 327).

Wupatki: Tucson newspaper published feature story (see p. 327).

200 MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTION

210 Maintenance, Unusual

Capulin Mountain: One of the heaviest maintenance months on record witnessed removal of down trees, fence alterations, road repair, and culvert changes (see p. 320).

Saguaro: A general cleanup program removed temporary structures and put public concentration centers in fine condition (see p. 287).

220 Improvements

Bandelier: Oiling of the entrance road, and curbing and surfacing of industrial and residential area roads was completed (p. 297).

Chaco Canyon: Two new pit toilets and a coal house were constructed a new water pump was installed, and improvements were made in the custodian's residence (see p. 304).

El Morro: A much-needed addition to the house was made (see p. 316).

Natural Bridges: A new trail was finished (see p. 321).

Saguaro: Approach roads to the south entrance are being improved.

White Sands: The administration parking area, utility roads, and the road into the sand-dune area were black-topped (see p. 283).

Wupatki: A stone water trough was completed by the CCC.

231 Construction

Bandelier: Operator's residence painting was completed, cabins of the "A" and "B" groups were plastered and plumbing installed in "B", electric wiring was placed in both groups, and the new comfort station walls were completed to viga height (see p. 299).

Casa Grande: The education building was nearly completed. Shop window ledges were poured and windows and doors hung. Warehouse window ledges were poured, the frames set, and exterior plastering completed. Inside walls of the oil house were plastered and the roof of the wash rack finished. Equipment shed walls were completed to the plate line. (see p. 310-11).

300 ACTIVITIES OF OTHER AGENCIES IN THE MONUMENTS

320 Cooperating agencies

Arches: The Utah State Highway Department has helped (see p. 336).

CONDENSED REPORT (CONT.)

Canyon de Chelly: The Indian Irrigation Service aided in the repair of a water pump (see p. 319).

Chaco Canyon: The Soil Conservation Service has done fine work in preventing erosion and the washing away of ruins (see p. 302).

Saguaro: Fine cooperation has been received from the University of Arizona. (see p. 282).

350 Donations and Accessions

Headquarters: A long accession list appears on page 328.

Montezuma Castle: The skull of a water moccasin has been added to the museum exhibits (see p. 307).

400 FLOPS, FAUNA, AND NATURAL PHENOMENA

410 Ranger, Naturalist and guide service

Aztec Ruins: Reports of patrols to Hovenweep and Yucca House are given on pages 285-6.

Headquarters: An outline of naturalist activities for the month appears on pages 285-6.

Wupatki: Measurements of spring flow continued (see p. 290).

420 Museum Service

Bandelier: A number of labels were added (see p. 299).

Montezuma Castle: Four new life mounts of insects were installed.

A study of public reaction to displays was continued (p.306-7).

Tumacacori: An outline showing the status of displays in the new museum is given on page 313. Of the 26 exhibits, 15 are complete.

Dr. E. Haury lectured to an audience of 65 on Indians of Southern Arizona on October 14 (see p. 314).

440 Insect Control

Bandelier: The custodian and forestry foreman spent two days in insect control work (see p. 299).

460 Birds

Bandelier: Juncos made their seasonal return and quail were observed near the Ceremonial Cave (see p. 298).

El Morro: One small owl became a cannibal (see p. 317).

Gran Quivira: Migration flights of small birds brought large numbers of feathered visitors to the station (see p. 294).

470 Other Animals

Capulin Mountain: Deer, squirrels, and porcupines were numerous.

One bob cat was seen by the custodian (see p. 320).

Chiricahua: Red squirrels were more numerous this month (p. 296).

Bandelier: Many signs of bear, deer, and turkeys were seen (p.298).

500 USE OF MONUMENT FACILITIES BY THE PUBLIC

510 Increase or Decrease of Travel

Travel fell off from September, but was slightly higher than during October, 1937 (see pgs. 277 and 334-35).

530 Newsworthy Visitors

Aztec Ruins: Assembly of the New Mexico Odd Fellows Grand Lodge brought 400 special visitors (see p. 284).

Canyon de Chelly: The Sierra Club of Southern California came in.

Chaco Canyon: Presidents of New Mexico's institutions of higher education and leading scientists visited the monument. Among them were Drs. J.F.Zimmerman, E.L.Hewett, E.H.Wells, H.W. James, and Gossard (see p. 303).

Montezuma Castle: P.K.Hooker of Washington, D. C.

Navajo: Earl Morris, A.R.Huyett, Dr.W.Rodgers, Alice Eastwood, J.T.Howell were monument visitors (see p. 312).

Headquarters: Ken Disher, James H. Wells, and M.E.Musgrave (p.326).

Tumacacori: Among other notables were listed the following:

Ken Disher, Dr. Norman Gable, Mary Stearns, and Dr. Emil Haury.

White Sands: C.G.Abbott of the Smithsonian Institution.

540 Camps

Casa Grande: Heavier travel and the arrival of cooler weather made the picnic area much more popular (see p. 309).

600 PROTECTION

610 Police

Chiricahua: Boundaries were guarded and several deer hunters turned back. Local people have cooperated (see p. 295).

Saguaro: Boundaries were posted, and as much patrol has been carried on as was possible (see p. 288).

Wupatki: Traps stolen by an Indian from a government hunter were recovered (see p. 290).

620 Fire

Bandelier: Water in the fire suppression barrels was treated to prevent freezing. Several fire hazard instruction classes held (p300)

640 Destruction of Predators

Casa Grande: Two house cats were killed during the month.

El Morro: Six house cats were removed from the monument (see p. 317)

Pipe Spring: Two house cats were killed. CCC boys bring them into camp for pets (see p. 293).

650 Signs

Arches: Two directional signs are badly needed (see p. 336).

Montezuma Castle: Thirteen "no hunting" signs were placed (p. 306).

Saguaro: Directional and informational signs need considerable re-pairing and relocating (see p. 287).

700 ARCHEOLOGY, HISTORY, AND PREHISTORY

El Morro: Preliminary work started in casting inscriptions (p.316).

710 Ruins Stabilization

Aztec Ruins: Nine rooms were waterproofed (see pgs. 285 and 338).

Chaco Canyon: Mobile Unit activities required 386 man days and placed, in wall support, 16 cubic yards and 12 square yards of materials; five doorways were rebuilt, and steel wall-support beams were placed in two rooms. Capping required 104 square yards of material on walls and bench tops and nine square yards on vertical surfaces (see p. 337-38).

Hovenweep: Stabilization is badly needed (see p. 286).

Wupatki: Plans laid for instruction session (see p. 328).

CONDENSED REPORT (CONT.)

900 MISCELLANEOUS

Arches: The road was washed out for the fifth time this season.
(see p. 324).

Canyon de Chelly: Indians are harvesting their crops. They will soon be leaving the canyons to winter elsewhere (see p. 318).
The Ganado-Chin Lee approach road to the monument is being approved (see p. 319).

Chaco Canyon: Approach roads were in very bad condition during the month. Rock-braced-up-from-beneath measurements show a movement of about $1\frac{1}{4}$ inch during the year (see table of measurements on page 304).

Chiricahua: Range conditions in the vicinity have been exceptionally fine (see p. 295). Considerable road work has been done on the monument approaches (see p. 297). The strength of the CCC Camp, NM-2-A, was increased by 59 enrollees (see p. 295).

Montezuma Castle: Official weather recording station equipment was installed during the month. Approach roads have been in very bad shape. One of the approach roads, through Cornville, is to be re-routed and then surfaced (see p. 305-307).

MAIL COUNT: Official Mail Count for October, 1938.

Official mail, incoming- - - - -	3,271
Official mail, outgoing- - - - -	3,662
Official telegrams, incoming- - - - -	22
Official telegrams, outgoing- - - - -	21
Personal mail, incoming- - - - -	<u>1,902</u>
Grand Total Mail Handled- - - - -	8,878

Cordially,

Frank Pinkley

Frank Pinkley,
Superintendent.

FIELD REPORTS

FROM THE MEN ON THE JOB

WHITE SANDS

By Tom Charles, custodian
Alamogordo, New Mexico

Visitors this month, 6,720.

I was pleased with Doc Halliday's jibe, in the September report about the White Sands count. "Doc" is a privileged character as far as White Sands is concerned. After his trip last year, he paid the Sands one of the highest compliments ever given the monument.

When it comes to White Sands enthusiasts we have had but few who topped our friend Doc Halliday; Dr. Gilbert Grosvenor perhaps, who went home and gave us 17 pages in the National Geographic, and maybe the woman in Turner, Maine, who stole the Turner County flower show last fall with a White Sands table. She probably had less and gave more than any other one of our 300,000 visitors up to date. But let me put Doc right; it is the visitor at White Sands who is the enthusiast--we simply count the cars.

Our outstanding accomplishment this month has been the completion of the blacktopping of the parking area, the roads to the residences and utility area, and the three miles into the sand. It is a swell job and Mr. Underhill got away on October 15 leaving instructions to keep the loose chips properly swept and uniform.

Joe has been helping Johnny haul the cedar butts and the poles for the telephone line and I think that job is about completed. The actual work on the line, I understand, is held up for approval.

The 23 miles of new construction on Federal Highway No. 70 is progressing rapidly. The grade has been completed, and a beautiful grade it is. The cluster of headquarters buildings with the American flag in front will greet the eastbound tourist fully a mile before he reaches headquarters. If this setup doesn't stop him, he is hopeless. The approach is perfect.

Our registration is down to 1120 for the month, that is less than one-third of what it was in August, and Joe's daily count on the road shows an average of 2.6 cars per hour which is about one-third of his hourly average of 7.5 cars for August. So this month's count is not so good. Using the same percentage of registration that we have used for the past two or three months, we have had 6,720 visitors this month.

WHITE SANDS (CONT.)

In the registration book, this month, we note the names of some Park Service celebrities whom we failed to meet for one reason or another. Among these are Mr. and Mrs. Milton Swatch of Santa Fe; C.G. Abbott, Smithsonian Institute, who was with Chuck Richey; Charles F. Gurner, Washington. Then we had Hub and Ruby Chase of Bandelier; Jack Diehl and wife, Raymond Higgins and wife, of Santa Fe; and Mr. and Mrs. Charles L. Gable Chief of Park Operations, Washington, D. C. Mr. and Mrs. Gable thoroughly enjoyed the Sands, I think.

*****SWL*****

AZTEC RUINS

By T. C. Miller, custodian,
Aztec, New Mexico

Visitors this month, 973.

GENERAL

October opens our new travel year with a slight increase in travel due to the Grand Lodge of New Mexico in assembly held here October 10 and 11 with initiatory degree held in the Great Kiva of the Aztec Ruins. More than 400 people attended the Grand Lodge, and the Aztec Ruins was alive with Odd Fellows and Rebekahs for three days.

The custodian regrets that he was absent from the monument on sick leave from the afternoon of September 28 to October 16 inclusive and missed all these fine people. However, I have had many fine reports on the service rendered by Ranger Brewer and the guides during my absence, which proves that if a fellow builds up a good organization it can function just as well without him as it can with him. My doctor gave me no choice in the matter and advised me to submit to an operation for appendicitis. I am back on the job now and, while I am still a little below normal, I am gaining fast and have begun to feel fine again.

WEATHER

After a season of unusual length and great growth of fruit and flowers, Monday October 17, brought the first killing frost here, the temperature going to 26°. The two following mornings were still colder reaching the mid twenties and finished the job of ending plant growth for 1938.

AZTEC (CONT.)

The season has been one of unusual production for both farmer and fruit grower and, for the latter, one of prosperity.

The foliage of the trees is showing great beauty and variety of color. A table of weather statistics follows:

Max. temp.....85 on Sept. 30	Clear days.....14
Min. temp.....24 on Oct. 19	Partly cloudy days.....10
Precipitation......90 for month	Cloudy days..... 6

MOBILE CCC UNIT

This work has proceeded with a five man crew and to date Rooms No. 1 through 11, excepting 8 and 9, have been waterproofed and the walls capped around the individual roofs of the rooms. We are now working on Room 9. This room had concrete slab over the beams on the roof that was badly cracked and the roof of the room was almost a total loss. We found, after clearing the room, that the concrete slab was in such bad shape that the concrete had to be removed leaving only two good beams intact. We hope to finish this waterproofing job some time next month.

NEWSWORTHY VISITORS

Concessionaire Alexander and his wife, Rocky Mountain National Park, were monument visitors September 24. Gordon Vivian, Archeological Foreman Mobile Unit, was here looking over our waterproofing job September 28. Mrs. Ruby Warheim, Secretary to Superintendent Boles of Carlsbad Caverns, was here October 10 and 11. Custodian McKinney was here on same date.

RANGER ACTIVITIES

Much has been accomplished on general cleanup over the monument including repainting the flag pole, also the painting of the east side of the comfort station is about 50 percent complete. All activities in the monument have been inspected by the custodian regularly.

For the month beginning October 1 and ending October 22, 973 people entered the monument in 278 automobiles coming from 35 states, the District of Columbia, Territory of Alaska, and the following foreign countries: Austria, Canada, France, Germany, Holland, Poland, and Scotland.

MONUMENT INSPECTIONS

Ranger Brewer was detailed to inspect Yucca House and Hovenweep National Monuments on October 22.

AZTEC (CONT.)

Yucca House was found to be in good order. No recent vandalism is in evidence and the fence is in good shape all around. As per your request, Yucca House was photographed and negatives will be forwarded to your office promptly. The reason your files do not contain good photos of this monument probably lies in the fact that Yucca House does not lend itself pictorially, a good background showing the Sleeping Ute Mountain minimizes the ruin, and a close-up of the house reveals very little character. Shots were made, so we'll see what we have after they are developed.

HOVENWEEP

By J. W. Brewer, park ranger

There's a touch of fall in the air at Hovenweep. The bloom is still on the sage but there's an early morning - late afternoon snap in the air.

The sheep coming off the mountain have not yet reached the monument and all the groups visited are looking mighty good. All are well posted; the cloth signs that were forwarded to the writer at El Morro last year were sent on to Aztec where Col. stored them and had them put up by Pete in conspicuous places. Pete has done a good job of sign posting here, and together with the boundary signs put up last year the areas appear to be well marked.

No additional vandalism was observed at any of these fine ruins, (Cool Spring House group was omitted), but time and rain-fall are taking their toll.

Bulletin 80 (B. A. E.) shows a photograph of Horseshoe House with a solid wall; the writer's report (1937) shows the same wall with a great gaping hole torn through it by pot-hunters, a photograph today would show an increase in the size of this hole due to rocks falling from the ragged arch.

A little ID-CCC stabilization right now would do much to preserve this small edition of "Sun Temple".

Many of the rim rock houses should be stabilized as soon as possible. So many places look like an hour's work done soon might forestall a week's job later on. Boss, let's have some preservation for Hovenweep, we sure need it and some boundary extension.

~ ***SWM***~

SAGUARO

By Carleton S. Wilder, temporary
ranger, Box 2708, Tucson, Ariz.

Visitors this month, 1,300, estimated.

My activities since reporting for duty on October 17 have consisted primarily of getting my living quarters fixed up, and trying to get the monument in shape for visitors. The lack of care during the past year is making the latter a slow job.

GENERAL CONDITION OF THE MONUMENT

No evidence of vandalism, or specifically woodcutting, has been observed. The one large picnic area was in bad condition due to heavy use and no provisions for refuse disposal. This area has been pretty well cleaned up. A shelter at the Speedway entrance was taken down, and the surveying tower will be removed this week. The fence has apparently been run into near this gate and a new fence post is needed. I'll get to this soon.

The roads are in good shape, showing very little sign of washing. Several of the bad spots have been fixed temporarily and I'll try to get at the others a little later. Some four miles of improved, graded road is in good condition at the south entrance. The south picnic area is clean and orderly.

SIGNS

The signs at the entrances are scarcely legible and need repainting, something I'll do as soon as I get green paint. Maps at entrances need replacing also. I have not put up signs directing visitors to ranger cabin yet, waiting until I can plan to be there more often.

IMPROVEMENTS

I have stopped in at Randolph Park at the CCC camp twice, but have not been able to get information as to their plans. Part of the camp is to be transferred to Tucson Mountain Park. I hope that does not mean curtailment of work at Saguaro.

A Mr. McCarthy, road foreman for Pima County, tells me they are planning to put through a road from the south entrance to the Vail and Colossal Cave Road.

Work is progressing on the link from Broadway to the south entrance. There's about three miles to go.

SAGUARO (CONT.)

HUNTING SEASON

The Catalinas and Santa Ritas are open and offer good deer hunting this year. I talked with several friends in Tucson who are in touch with members of the hunting fraternity and they agreed that it is pretty well understood in Tucson that the Rincons and Tanque Verdes are closed. This next weekend, the third in the hunting season, I'll check with the ranchers to find if there has been any hunting activity, and attempt more active patrol. There is the probability that some who have failed to get their deer will try at the end of the season to get one on the monument. The entire west boundary and west part of the north boundary are posted, and parts of the south boundary approaches. The east boundary (Benson side) offers a problem that cannot be handled with just one man on the job.

VISITORS

I have made very little effort to contact visitors as yet. Several contacts were made during the day spent working at the Speedway entrance, and several at the cabin. I do not know how I'll ever get the exact number who enter the monument, or even an approximate number. Here is a breakdown of what little information I have for four days:

Registered: 29 people. Total states and territories represented, eight; Mississippi, Alabama, Arizona, Wisconsin, Nebraska, Illinois, Minnesota, and Alaska. Two parties of seven people for total time of 30 minutes.

I would guess that from 150 to 175 people have been through the monument during this one week. The problem is to get the local visitors to register. I think a notice in the Tucson paper stressing the importance of registering in about three or four weeks, together with announcement of the facilities available will help.

MISCELLANEOUS

The Park Service has a real friend in William Bray, Supt. of Buildings and Grounds at the University of Arizona. He not only turned the University's building over to me for quarters, but supplied bed, table, chairs, water barrel and 40 pieces of window glass. Just told me to submit a list of things needed.

*****SWM*~*~*

WUPATKI

By David J. Jones, park ranger,
Tuba Star Route, Flagstaff,
Arizona.

Visitors this month, 230.

TRAVEL

Visitor travel to the monument reached a new October peak with a total of 230 visitors although this represents a considerable decrease over last month. Those who visited both the Citadel and the Wupatki ruins total slightly more than half of all the individuals who registered. Looking to the future, I can see great increases in the number of our visitors as a result of the improvement of Highway 89. Local observers believe that within the next year or so travel on this highway will increase two or three times.

WEATHER

Max. temp.....	88°	Precipitation.....	.10 in.
Mean max.....	71.2°		
Min. temp.....	33°		
Mean min.....	48.2°		
Anemometer reading.....	4733.8 miles since Sept. 24		

The weather man seems to be unable to make up his mind. Early in the month the temperatures began dropping, and for a while we had typical grey winter days with occasional snow and sleet storms on the San Francisco peaks. Now, however, the days are as sunny and pleasant as during the summer months. Our heaviest and only real rain was one tenth of an inch on October seventh. A sleet storm from the Peaks turned into rain before getting to Wupatki.

GENERAL

Approach roads to the monument are all in good condition except for that between here and Sunset Crater. Due to the lack of moisture, the cinder road is dangerous to the inexperienced driver. October 11 we came back from Flagstaff in the evening to find two women waiting for us. They had gotten stuck in the cinders near Sunset and instead of walking back to Sunset (three miles), they walked the 14 miles to Wupatki which required about six hours. One of them, not in any too good health, collapsed after receiving nourishment. It was then necessary to place a mattress in the truck and take her to town; we arrived there at midnight.

WUPATKI (CONTD.)

The next morning, with the help of CCC boys, I took the car out of the cinders. While the women admitted that it was all their fault, the experience was none too pleasant, and might have been dangerous to the one. In two issues of the "Coconino Sun" the poor condition of the road was brought to the attention of the local people.

Wupatki spring was checked again on the 23rd and found to flow 640 gallons per 24 hours, an increase of 100 gallons over last month. With the coming of the snows, the flow should increase for the next few months to about 900 gallons per 24 hours, if our previous measurements are representative.

On October 10, a government trapper came to the ruin. He accused some of the local Navajos of stealing his traps. He had tracked them to this point and was very sure of his evidence. I, knowing the character of the boys, was a bit dubious. After talking with them and going over the evidence again, he found that the boys had nothing to do with the traps. We did, however, find that the son of one of the transient Navajos had taken traps from this man last summer. These were returned.

The engineering crew headed by A. W. Shirley left on the 29th to do some work at Sunset Crater and then go on to another job. They did not finish with all the necessary topography, but the survey is supposed to continue under the direction of the engineer from Camp NM-5-A. Mr. Shirley has not been able to do anything because of a lack of equipment.

The BPR survey of the road between here and Highway 89 has not started yet, but is planned for the first of November.

At the suggestion of Naturalist King, I am going to submit my idea for a "nature trail" to illustrate points of interest along the roads within the monument and between Wupatki and Sunset Crater. Having overcome objections at Casa Grande by calling the nature trail there a "desert trail", I am wondering whether or not I should call this one the "Cinder trail". Also planned for the coming month is a report on the possible features of interest which should be considered in planning a Sunset-Wupatki loop road. Objections to Lyndon Hargrave's proposed bird trap for Wupatki were overcome and I am now having merchants in Flagstaff save onion sacking which will replace the more expensive fish netting.

VISITORS OF INTEREST

NPS inspections were made by Al Kuehl and H. Langley of the Branch of Plans and Design. Dale King and Hortensia from headquarters visited us and we solved many problems we could not straighten out by letter during the last six months.

Mr. and Mrs. W. E. Reynolds of the Treasury Department and Floyd Williams of the Post Office Department of Washington, D.C. visited the monument on October 5.

Mr. and Mrs. E. M. Cravin, New York, made several trips to Wupatki during the month so that Mr. Cravin could paint here. Needless to say we enjoyed them. Mr. Cravin is one of the few artists who seems to be able to get a feeling of distance in his pictures, a factor which in my opinion will make or break a picture of this country.

Other visitors included Dr. Smith and Capt. Norman of NM-5-A, Donald Collier, and Miss Mary Erickson, an ornithologist from the University of California.

USE OF MONUMENT FACILITIES BY THE PUBLIC

Of the 230 visitors to the monument, 176 registered at the Citadel and 93 at Wupatki. Deductions were made for those who registered at both places. On 45 field trips 129 persons were contacted for an average of 77.6 minutes. Three individuals stayed overnight.

MAINTENANCE AND IMPROVEMENTS

Troubles with the ventilation in our refrigerator room had no sooner been eliminated by a no-down-draft ventilator designed by the architect at NM-5-A, than the refrigerator began acting up. The flame will burn, but will not cool the box. Fortunately it is cold enough that we can get along without it.

The stone water trough at the Wupatki tank was completed by the CCC boys, and a box for the pick-up was constructed in the carpenter shop.

*****SWM*****

SUNSET CRATER

By David J. Jones, park ranger,
Tuba Star Route, Flagstaff, Ariz.

Visitors this month, 1,000, estimated.

TRAVEL

A total of 447 visitors registered at Sunset Crater during the

SUNSET CRATER (CONT.)

month as compared to 1,000 estimated attendance in 1937, and 287 registered in 1936.

The survey party headed by A. W. Shirley located triangulation stations at the Crater in preparation for a survey.

It has been interesting to note the decrease in complaints on the register since the installation of the new one on September seventh. To date there have been only two complaints, one suggesting further development of the area and a rebuttal to this. In the old register there would have been several hundred by this time. I attribute the lack of complaints to the fact that the new register is neat and makes an attempt to give information. It has a smooth surface which invites the scrowler of names and the carver. Yet the register is just as new as when we put it in place. This is a fact which I think should be given consideration.

Always in the discussion of an unattended exhibit, the point of vandalism arises. My idea is that if we put in nice looking, well prepared exhibits, they will not be vandalized. We have taken one step in this direction with the register-- the next move should be to install an unattended exhibit to settle the question of vandalism once and for all.

*****STM*****

PIPE SPRING

By Leonard Heaton, acting
custodian, Moccasin, Arizona

Visitors this month, 268.

Again I tackle one of my hardest jobs at the monument, that of getting out my monthly report so that you can get a clear picture of what is going on up in the "Arizona Strip". There has been no great change take place this month at the monument and not so much to report outside of the visit of the N.P.S. officials on September 27.

VISITORS

There has been a gradual dropping off of the visitors to the fort, 69 for October as compared with 117 for September. The local travel has been more, due to the fact that the stock sales are on and herds being moved to the winter range, count 179 for the month. Then we have had 20 use the camp area for lunching and camping.

PIPE SPRING (CONT.)

Among the visitors were N.P.S. officials: Dr. Charles N. Gould, W. B. McDougall, Harvey Cornell, Al Kuehl, all of Santa Fe, New Mexico; Edwin McKee, naturalist, of Grand Canyon National Park; and Mr. Harold Hawkins and Mrs. Hawkins from the Washington Office. These men were here on September 27 looking over the ground for a proposed nature trail and geological exhibit on the hill back of the fort.

The visit of these men was greatly enjoyed and I want them to come again and stay longer if they can find the time.

O. H. Coleman of the Arizona State Land Department was a visitor on September 23.

WEATHER

My weather record shows that we had a number of cloudy and stormy days the forepart of the month putting snow in the mountains and ending up with a good killing frost the night of October 16. There have been ten stormy and cloudy days, seven partly cloudy days, and 15 clear days this month.

CCC ACTIVITIES

I continued to use the dump truck and six boys cleaning the diversion ditch of sand that was washed in by the August storms. This was finished October 10. Thinking that we needed some materials for some of the other projects more than we needed to use the money to fill in the wash, I turned the truck and four boys back to the camp, keeping two for the rest of the week to do some cleaning up of woods and dead trees at the monument. At present I haven't any of the CCC boys working for me.

On October 14, 65 new boys came in to fill up the camp and by Sunday night 15 of them had gone over the hill headed for home.

MISCELLANEOUS

I have destroyed two house cats this past month and still have several more to get that have been brought in by some of the CCC boys from the nearby towns. I have out some No. 4 steel traps in which I hope to get them (the cats).

The leaves on the trees are turning yellow and it won't be long till they are all off, filling up the ponds, ditches and the lower rooms of the fort when the wind blows.

With the exception of having my winter wood and coal supply, I believe the monument is in good shape to withstand the winter this year, and I am planning work so that I will have something to do no matter what kind of weather we have.

*****SWM*****

GRAN QUIVIRA

By George Boundey, custodian
Gran Quivira, New Mexico

Visitors this month, 259.

In the yearly report, we estimated visitors for October as 150. We exceeded that number by 109.

Weather for the month has been windy with some cold nights. On the night of October 9 we got a heavy freeze which destroyed all the late beans and caused a tremendous loss to farmers.

Regional Engineer Diehl and wife visited the monument on September 25. Mr. Diehl inspected the pumping system and the roads, and most of the month has been spent in making the suggested improvements.

The heavy rain of the summer caused a small lake to form down near the village but now that the water is practically dried up, the birds are coming to the monument and it keeps one of us busy filling up the bird baths. There are only about 12 species of birds represented but they come in by the hundreds.

Mountainair business men went to Santa Fe one day last week and brought back with them several display cases and a quantity of the material excavated by the University of New Mexico at the ruins of Quarai. Temporarily the material will be on display in the Mountainair auditorium.

The work of excavation at the Abo ruin seems to be going on satisfactorily but owing to the later occupation of the ruins by Mexican people, very little of the Indian and Mission material has been found. Considerable repairs are being made to the portion of the Mission wall still standing and many of the smaller rooms are being cleaned out.

Plans are being made in Mountainair to improve the roads leading to several ruins in that vicinity thus making them more accessible to the traveling public.

CHIRICAHUA

By Frank Fish, custodian
Douglas, Arizona

Visitors this month, 484.

The copper industry shows an improvement as to prices during the month, and it is reported the Shattuck Denn Mine near Bisbee is preparing to start operations again. A number of road projects are under construction and are being let for construction in the near future. Range conditions are better than they have been for a good many years in the county. Cattle are fat and some stockmen were able to put up hay due to the abundance of grass on their ranges. Some restocking has been done in areas of abundant feed.

The weather has been dry and warm with cool nights. Killing frosts have occurred in the higher elevations of the Chiricahuas. Showers occurred on the first and third of the month. Leaves of deciduous trees and shrubs are turning color due more to the dry weather than any cold.

Visitors show a decided decline over the corresponding period of last year. Comparative figures follow:

<u>October</u>	<u>Cars</u>	<u>Visitors</u>	Out of <u>State</u>	<u>Trips</u>	<u>Attendance</u>	Total Min. <u>Guide Ser.</u>
1938	131	484	101	68	313	3155
1937	<u>184</u>	<u>727</u>	<u>169</u>	<u>70</u>	<u>399</u>	<u>2662</u>
Loss or Gain.....	-53	-243	-68	-2	-86	493

A mistake was made in travel figures for the month of September. Visitors for the month to the 23rd inclusive numbered 819 instead of 576.

Approach roads have been in good shape but dusty. The oil surfacing has been completed from Elfrida to McNeil and recent word informs us an additional 10 miles will be surfaced from McNeil to Douglas. Upon completion of this 10 mile section, there will be continuous pavement from Douglas to a point 10 miles north of Elfrida. The Willcox-Monument road has been re-aligned, graded, and ditched. It is expected that construction will start soon on a county road through Apache Pass to top the Benson-Stein's Pass road that is under re-alignment and grading operations preparatory for surfacing.

Deer hunting season opened October 16, and to date no known trespassing has occurred on the monument. Two boys were warned to keep out after they had unknowingly entered on the south boundary.

CHIRICAHUA (CONT.)

We have attempted to get in contact with all sportsmen camping near the boundaries and give them information concerning the area with the rules and regulations pertaining to hunting. Local people have helped us immensely by informing all parties they contact and this aid is appreciated and it is felt has done a lot of good.

Park Service officials visiting the monument this month were: Al Bicknell, Jack Haile, Al Kuehl, and Charles Carter.

Maps for gas installations are being prepared for the approval of the Director and will be forwarded to Coolidge in the near future.

A number of young Chiricahua Red Squirrels have been noticed lately. These squirrels appear to be more numerous than in the past.

At the Faraway Ranch one can ride close to the deer that have been raised in the orchard. The other evening two does and a young buck were noticed harvesting Ed's and Lillian's apples.

Speaking of apples, it seems a CCC enrollee recently purloined some green ones and the lieutenant, finding them on him, appropriated them. However the lieutenant started munching the sinful fruit and early the next morning called in the aid of the doctor. Needless to say the "Doc" fixed him up and the lieutenant was able to eat supper the next evening.

*****SWM*****

CHIRICAHUA CCC

By William Stevenson, project
superintendent, Douglas,
Arizona.

Four hundred square yards of rock banks were sloped on Bonita Highway three and one-half miles north of the Sugar Loaf truck trail intersection. Materials were used to widen fill sections. Six hundred square yards of banks were sloped one mile west of Bonita Park. Rock materials were used in the elimination of borrow pits, and dirt was used in dressing fill slopes.

A gravel pit was opened near the rock quarry and one-half mile of Bonita Highway surfaced near the monument boundary. Ditches and culvert basins were cleaned between the Administration Building and the monument boundary.

CHIRICAHUA CCC (CONT.)

Work was resumed on the Administration Building furniture and exhibit cases October 17. It is hoped that this project now can be carried through to completion without further interruptions. The carpentry crew worked the entire month fabricating benches, cabinets, doors, etc., for the utility group at Casa Grande National Monument.

Jack Haile inspected the camp October 19 and 20. Al Kuehl and Charles Carter arrived October 19 and layed out the landscaping work for the Headquarters Area. Mr. Carter will remain several days to draw up plans.

On October 8, 59 enrollees were received as replacements.

*****SUM*****

BANDELIER

By C. G. Harkins, custodian
Box 669, Santa Fe, N.M.

Visitors this month, 613.

VISITORS

Visitors to Bandelier totaled 613 arriving in 192 cars from 21 states and seven foreign countries. Washington, D. C. had 15 representatives. There were 59 field trips and 41 museum parties with 6,050 minutes spent in the field with visitors and 770 minutes in the museum; our field trips had 231 visitors and the museum showed a total attendance of 147 visitors.

GENERAL

The month of October has been very fair with cool nights and warm clear days. A very heavy rain storm on October 7 washed the road quite badly, and it was necessary to send a crew of men with a truck to the Otowi Hill Road to repair that section of highway.

The road oiling of the entrance road has been completed and the clean-up is proceeding satisfactorily along the right-of-way.

Visitor travel has been way below normal, the only reason we have to offer is that there are no tourists traveling.

BANDELIER (CONT.)

This month was 320 below a like month in 1937. The road from Pojoaque has been in the worst possible condition and in order to reach Santa Fe a detour around by Espanola has been necessary on several occasions. There is a general movement in Santa Fe by business men for a new highway, or major improvements to the present Highway 285 from the south. Improvement of this highway would increase our visitor travel to the monument as this highway would give an outlet to southern Colorado through Taos.

The visitors to the monument at this time of year are by far the hardest to interest in guided trips, they much prefer to go by themselves as they are nearly all local people from Santa Fe with friends from the East. This type of visitor is hard to dispense with and, if we are to insist on their being guided, they resent this attitude of the Park Service, mainly due to the fact they have been here several times before and would rather do the telling in front of their friends than have some one else do it.

Hunting season is approaching. Deer and turkey are quite numerous, occasional signs of bear are noted in the dust of the trail along the upper reaches of the canyon. Juncos have returned to the canyon, the first being noted on October 12. Also the quail planted here last spring have been observed above the Ceremonial Cave, that is, some of them have, apparently about a dozen escaped the bob-cat that dug into their pen.

A summary of the weather follows:

Days clear.....	23	Mean Maximum.....	68.87
Days cloudy.....	3	Mean Minimum.....	35.67
Days part cloudy.....	5	Mean.....	52.27
Max. temp.....	83	Precipitation	1.41
Min. temp.....	24		

RADIO INTERVIEW

On October 6, a 15 minute interview about Bandelier was given over Radio Station K O B in Albuquerque. The program reached several thousand people some who had never heard of Bandelier. This interview was heard throughout New Mexico and a number of visitors have remarked about hearing it. Several letters have been received commenting on the program along with two telegrams of congratulation in addition to verbal comments by a number of visitors who had listened in on the program.

BANDELIER (CONT.)

IMPROVEMENTS

A three in.oil matt was laid on the road to the residential area also new curbing and protection walls were placed in the vicinity of the residential area. These improvements were very necessary and eliminate a great deal of dust around the residences in addition to the general improvement of the area.

INSECT CONTROL

Two days were spent in company with Forestry Foreman Fulton on insect control work, a report of which has been forwarded to headquarters under separate cover.

N. P. S. VISITORS

Mr. and Mrs. Hugh Miller, Coolidge, Arizona; Mr. and Mrs. Charles L. Gable, Washington, D.C.; A. H. Montgomery, Santa Fe; Larry Miller, assistant landscape architect; J. H. Diehl, regional engineer; Charles A. Richey, Santa Fe; Milo P. Christensen, Santa Fe; and S. S. Kennedy, Washington, D. C.; were on the monument during the month.

MUSEUM

A number of labels have been received from the Western Museum Laboratories in Berkeley to be put in place in the unfinished exhibits thereby bringing the museum that much nearer completion.

*****SWM*****

BANDELIER CCC

By James Eden, acting project
supt., Box 669, Santa Fe, N.M.

Final completion is still being withheld on the Lobby and Sales Room unit of the Operator's Development pending installation of the heating system.

Painting and staining of the Operator's Residence has been completed during the month. The installation of the kitchen unit, floor furnace, fuel tank, and the basement floor will make this a 100 percent completed project.

The first plaster coat has been completed on Cabin "A" group and at the present time the finish coat of plaster is being put on. All doors and windows are now prepared and ready for installation.

BANDELIER CCC (CONT.)

Plumbing fixtures have been installed, and rough plastering has been completed on Cabin "B" group, of the Operator's Development.

Wall construction of the Comfort Station has been completed to viga height. This building is now ready to be roofed.

In addition to the work on the various units of the Operator's Development, the carpenter crew has been busy all month preparing furniture for installation in the Development. Under the Furniture Project, 55 tables and chairs have been colored and stained and are ready for installation in the dining room.

Quarrying of building stone, for use in wall and floor construction, has gone forward all month.

Skilled Laborers Gardner and Bridgeman, electricians, have put in time during the month hooking up the electrical circuits to Cabins "A" and "B", and the Comfort Station.

A new member was added to the personnel of this camp on October 24. Robert S. Harris entered on duty on this date as Engineering Foreman and at the present time is in charge of the Rock Quarry Crew.

*****SWM*****

BANDELIER FORESTRY

By James T. Fulton, forestry
foreman, Box 669, Santa Fe, N.M.

FIRE HAZARD INSPECTIONS:

During the past week, discussions have been held with both foremen and leaders concerning fire hazards around our projects and in buildings occupied or used by CCC personnel. Although we have had weekly fire hazard inspections for a long time, we felt that recalling fire prevention practices to everyone's attention would be a good thing in view of the fact that over a period of time such things can become vague and also in view of the fact that winter is upon us with its increase in fire hazards within and around buildings.

In addition, we have adapted the self-inspection fire report, which was included within the new safety book, to our particular needs.

BANDELIER FORESTRY (CONT.)

The water in our fire barrels has been treated so that it will not freeze. We have hopes that our personnel is still more fire-conscious and, as a result, will readily detect fire hazards and keep them non-existent.

*****SWM*****

WALNUT CANYON

By Paul Beaubien, junior
archeologist,
Flagstaff, Arizona

Visitors this month, 934.

There were 1,314 visitor contacts, and 56 campground users. The 136 percent contact is none too high as it would be possible to have a 300 percent contact with one CCC boy at the museum, one at the observation point, and one down on the trail.

Al Muehl and Harry Langley inspected the monument on October 1. I met Drs. Gould and MacDougall at NM-5-A, October 4. October 6, Jack Haile made a thorough inspection of the projects here. I was away on annual leave from October 8 to October 23 and missed, among others, Hugh Miller and Dale King. Charles Amsden called during my leave period, and I was sorry to have missed him. J. H. Tovrea is here now, locating a pipe line to bring water from Flagstaff to the monument.

I would like to commend some one for the way the monument was kept during my absence. Everything was cleaner and neater than when I left.

I understand there has been some winter weather, but we are now enjoying the finest weather of the year, there is no wind and the days are clear and cool. The trees have changed color, but the leaves haven't fallen yet. All we need is more visitors.

Several deer have been shot around the monument boundaries. Three bucks and two does have stayed near the stone quarry, and had become rather familiar with the crew working there. One of the bucks was shot recently, and ran to the quarry. The hunter followed in a car, and brought the buck down as the boys looked on. As the quarry is outside the monument boundaries, the hunter was perfectly within his rights in killing this practically tame deer.

*****SWM*****

CHACO CANYON

By L. T. McKinney, custodian
Chaco Canyon, New Mexico

Visitors this month, 403.

Another travel year has rolled by, and this seems to be the first month of a new one. I remember in my last October report I was trying to think of something to write. Twelve months have passed and I'm still trying to think. Anyway, I'm still in God's Country, even if you seldom hear from me. Things are still looking pretty fine over here, though frost has ripped plants a bit.

I left the Bright Spot of the Southwest this month and went to Albuquerque to get supplies and to see Carroll Miller who was laid up in the hospital after a hard summer's work. Carroll looked fine when I saw him in the hospital, and seemed to be doing fine also. He seemed to be well cared for, as there were about half a dozen good-looking nurses hovering around him. Carroll said the doctor took out everything except his appetite and a dose of next summer's travel. Anyway, he's back home and everything is fine except for the fact that mosquitoes have invaded the Miller domicile.

There have been several Brass Hats, as you called them, around this past year, Boss, but I can't see any changes so far. I still have the same amount of water gaps to repair, tumble weeds to burn, roads to repair, garbage pits to dig, ramadas to repair, gates and fences to mend, but this can all be done while I'm hibernating this winter.

I believe there are only two men beside myself in the Southwestern Monuments that really know how much country there is to cover in this monument. They are Hugh Miller and Charles Richey, who took a look at it, whether they wanted to or not.

SOIL CONSERVATION

The S.C.S. is still doing a lot of planning for future work within the Chaco, if we can ever secure a CCC Camp so that we can help them out on the labor situation. The S.C.S. is a grand Service and has been doing its part and ours too for the past four years. The reason this monument was set aside, was because of the wonderful ruins to be found here. And it is much better to show them to the visitors, than to show them where they used to be.

CHACO CANYON (CONT.)

MOBILE UNIT

A year ago I spoke of the CCC's making old Bonito lift up her head. Well, she looks like she's sprouting a new crop of feathers. As Dr. Hewitt said a few days ago, "I think you've improved Bonito a 100 percent in its looks, since you removed the concrete capping". We're not trying to improve its looks; it can't be done by white man or Navajo. We are only trying to retain its looks, and I think Gordon is doing the best work that can be done.

ROADS

The approach roads from both directions are in the worst condition they have ever been in since they were first roads.

PERSONNEL

We have certainly missed the Hastings since they departed from the Chaco the latter part of last month, and will be looking forward to having them return next spring. But there is a possibility that Homer will be picked as a permanent man someplace, before that time. If he doesn't return to Chaco, it will certainly leave a hole that will be hard to fill.

UNIVERSITY OF NEW MEXICO

The University has quit building with rock, and has started building with adobe.

Dr. J. F. Zimmerman, President of the University, was a visitor this month. With him were Dr. Edgar L. Hewitt, director of the School of American Research; Dr. E. H. Wells, president of the New Mexico School of Mines; Dr. H. W. James, president of the State Teachers College; and Dr. Gossard, president of the Las Vegas Normal School.

WEATHER

The maximum this month was 88°, the minimum 20°, and precipitation was .30 (rain and hail). On the evening of October 20 we had a trace of snow, the first snow this year. There were six cloudy days this month, eight partly cloudy and the balance clear. We had a killing frost on three nights this month.

CHACO CANYON (CONT.)

ROCK-BRACED-UP-FROM-BENEATH

Last October 23, the Rock measured 2-4/32 inches on east end, 2-8/32 inches on center, and 2-6/32 inches on west end. The 24th of this October, the Rock measured 3-15/32 inches on east end, 3-22/32 inches on center, and 3-9/32 inches on west end. I'm not measuring it twice a day at present. I may be able to, later on.

VISITORS

There was a slight increase (12 visitors) over last October. There were 403 visitors through the monument this month, coming in 113 motor vehicles.

PARK SERVICE VISITORS

Dale and Mrs. King seem to be our only Park Service visitors this month. It's funny how business takes them to a warmer climate when nights begin to get frosty in Chaco.

DEVELOPMENTS

The two new pit toilets were completed and put in use for the public this month. They were all complete last month except for a little more painting. The old pit toilet that was built in the front yard of the custodian's residence, during PWA days, has gone with the wind.

A new pump for our water supply was received and installed, and is now working very satisfactorily.

I had a call from the freight agent a little while ago, telling me that my new underground gas tank was at the station. We will probably go in after it, and also the gas pump, which is at Gallup. These will be installed, no doubt, this week.

A six-by-six foot coal house was built adjoining the museum (blacksmith shop) on the south side, and I have already filled it with coal. Walls of the bath room in the custodian's residence have been re-kalsomined, the woodwork painted, and some repair to the plumbing has been done.

The new Ford pick-up was delivered this month, by Dale King, and the old one returned to headquarters. The new car is very satisfactory, and is greatly appreciated. Thanks Boss!

*****SWM*****

MONTEZUMA CASTLE.

By Earl Jackson, custodian
Camp Verde, Arizona

Visitors this month, 601.

During the month, 29 states and Washington, D.C. were represented. Visitors arrived in 203 cars, and four on horseback.

SPECIAL VISITORS

There have been no Park Service visitors this month. On October 5, a bus load of 31 people came down from Flagstaff. This was a party from the fifth grade of the O. L. J. Elementary School under the charge of Ivernia Tyson. On October 21, P. K. Hooker, of the Bureau of Agricultural Economics, Washington, D.C. arrived, accompanied by Philip Geisinger and Arthur Upson of the Forest Service, Tucson, Arizona.

WEATHER AND ROADS

Precipitation.....	0	Min. temp.....	30
Days cloudy.....	10	Mean maximum.....	85.7
Days partly cloudy.....	7	Mean minimum.....	43.2
Max. temp.....	90		

Travel was off 133 visitors as compared with October of 1937. That "0" for precipitation undoubtedly tells part of the story. Without a drop of rain this month, the roads have become more corrugated, dusty, and rough than I have ever seen them. They are so rough that under 40 miles per hour your teeth rattle loose, and over that speed you are playing with the hereafter. To cap all this, the Cornville approach to Highway 79 is still partly under construction.

Beaver Creek, which started running in August, has again given up the ghost, going as far as the pond in front of the Castle and stopping.

MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTION:

Routine cleanup of grounds has been performed. In the garage area, part of the flat was scoured and accumulated detritus of years was gathered and disposed of.

We have become an official U. S. Weather Bureau station now, with the installation this month of a new thermometer shelter, and removal of the old homemade one.

MONTEZUMA CASTLE (CONT.)

Some of the old repair work on two doorways in the Castle was in bad condition, so this was taken out and repaired by Ranger Alberts.

An incinerator pit was dug by Ranger Alberts, and half the removed dirt put on our old trash pile in an arroyo where it has served as an erosion check.

Thirteen "No Hunting" signs were put up along the boundaries. The most important boundary points are now posted.

A bookcase for government publications was made and installed in the custodian's office.

PERSONNEL

On October 10, the custodian and H.C.W.P. returned to duty from annual leave. Our leave was spent in New England. That country put on quite a show for visiting Westerners. We were traveling New England when it experienced its worst disaster in history, with a terrific combination of flood and hurricane. Although caught in the midst of all this, we had no mishaps.

MUSEUM AND EDUCATION

While on annual leave, the custodian and H.C.W.P. visited the Peabody Museum in New Haven, the American Museum of Natural History in New York City, and the Field Museum in Chicago. Various officials of these institutions were contacted, all of whom were most courteous and helpful, and considerable information on museum preparation technique for snakes and insects was obtained, as well as a lot of new slants on museums.

Most of the information obtained on preparation of insects for exhibits as life mounts was in the form of suggestions rather than as tried and true technique. We were much surprised to find that our little 75 cent homemade insect case and the insects with which we have filled it from our own work here at Montezuma Castle constituted the most effective insect exhibit we have seen. This is not intended as a boast, but as a statement of fact. Our homemade life mounts of insects had retained form, and in some cases, color, better than those we saw in the East.

The most comprehensive data we obtained on insect preparation was by letter from Richard Lewis Post, head, Department of Entomology, Ward's Natural Science Establishment, Inc., Rochester, New York.

MONTEZUMA CASTLE (CONT.)

The reason for all this talk about insects is because I wish to stress a very significant point: we have established at Montezuma Castle, after a year's trial, the proof that a display of native insects of the larger and more spectacular varieties, in life poses, is one of the strongest drawing cards of the whole museum. Some people will look at the insects and ask questions about them for 15 minutes, while at least 80 per cent of the visitors of all ages are definitely interested in them. So if anybody else in this organization wants to add a lot of tone to any natural history adjunct to his museum, let us urgently suggest that he tackle the preservation of insects and their exhibition in life poses. You can make your own case for a dollar, and if you don't know anything about how to fix your insects, you at least know almost as much as the scientists do about it.

During the month, several new formulae have been mixed, and some insects prepared in them. We don't know just how the specimens will work out, but four new ones are on exhibit.

While we were at the American Museum of Natural History, one of the technicians gave us an excellent articulated skull of a water moccasin. This looks almost exactly like a rattlesnake skull, coming from the same family as it does, and this skull has been mounted and placed in our museum here to facilitate explanations on how poison fangs work.

GENERAL

Overnight campers are about through for the season. We have had two or three parties this month, but none lately.

Conditions in the valley are looking up again, with the increase in copper prices. Building activity however seems limited to government projects.

A proposed relocation of the road via Cornville from Highway 79 to Beaver Creek, then on to Montezuma Castle and Camp Verde, has recently been staked. Plans are definitely laid for eventual oiling of the road all of this distance. The staked relocation eliminates a great number of bad curves on the road, one of which is on the monument.

Once this road is paved past Montezuma Castle, the Park Service can really begin to worry about the condition of the ruin. There will be so many more visitors to it that eventual wearing out will be much hastened, unless by that time it is closed to visitors or protected from the wear and tear of their traffic by steel catwalks through the building.

MONTEZUMA CASTLE (CONT.)

We certainly hope we will not be delayed too long in getting something definitely done on this matter, and something built under the lower front rooms. Because, visitors or not, those lower front rooms are going to fall if not braced.

*****SWI*****

CASA GRANDE

By A. T. Emmell, custodian
Coolidge, Arizona

Visitors this month, 2,471.

WEATHER

Days clear.....	15	Maximum temp.....	100
Days partly cloudy.....	9	Minimum temp.....	32
Days cloudy.....	6	Mean max. temp.....	93.6
Precipitation.....	T	Mean min. temp.....	52.0

Beginning October 4, the temperatures here at Casa Grande have been considerably lower than for the past five months; on the first, second, and fourth, the maximum was 100 degrees, even; but since that time, 92 degrees is the highest reading. Several nights during the month showed minimum readings of less than 40 degrees, the closest to freezing being 32.3, recorded on the 17th.

A very light shower, less than .01 inch in the gauge, occurred on the first, but with that exception, no rain fell during the entire month. Several rather bad dust storms blow up during the month, the worst on October 15, when it was almost impossible to see across the parking area to the picnic ground during a portion of the afternoon.

GENERAL

Although visitor travel is up considerably over that of last month, it is slightly below that of October, 1937. However, the figure is considerably higher than for October of 1934, '35, '36.

The average party time is higher, by .6 minute, than that during September; this finally breaks the pendulum swing that had been occurring for the past seven months, with the average party time being up one month, and down the next.

CASA GRANDE (CONT.)

Average time of parties in the ruins did drop slightly below that of last month, but the increase in the time spent in the museum brings the total trip time above that of September, while September had already topped that of August. Boss, I'm afraid that some of the fun of writing up visitor statistics will now be gone, unless this month should just mark a pause, and the up and down averages commence again next month.

Mrs. Bicknell returned from her summer on the coast on October 10; then, on the 21st, Custodian Bicknell and Mrs. B. left for a few days vacation in Long Beach; they plan to return sometime this week.

OFFICIAL VISITORS

Park Service visitors to the monument during the month were: Jack Haile and Al Kuehl; Ted Cronyn, ranger from Mesquite; and R. B. Lattimore, acting superintendent, Ft. Pulaski M.F., Savannah, Georgia.

INTERESTING PEOPLE

E. H. Davis, of Mesa Grande, California, an old friend of Mr. Pinkley's, visited the ruins and museum, while a house guest at the Boss' residence. Phoebe Rogers and Mrs. C. G. Salisbury, from up in the Navajo country, visited the monument. Bill and Sallie Lippincott were in for an afternoon on their way to take over the management of the Kinteel (Wide Ruins) Trading Post, which they recently purchased.

USE OF MONUMENT FACILITIES BY THE PUBLIC

October travel: 1938 - 2471; 1937 - 2482; 1936 - 2045.

Of the 2,471 visitors in 842 cars, 1,936 were contacted on guided trips through the ruins, the museum, or both. Three hundred twenty five parties were conducted through the ruins for an average time of 35.5 minutes per party. In the museum, 220 parties were conducted for an average of 24.2 minutes. (See "Casa Grande Visitor Statistics", under the Headquarters section of this report.)

The number of picnics and special groups visiting the monument took a sharp increase over that of the past few months. A total of 441 people, made up of 55 separate parties, made use of the picnic grounds during the month.

CASA GRANDE (CONT.)

Special groups picnicking on the monument were as follows: October 1, Tucson Indian Training School, 19 children, two adults; October 10, Coolidge High School faculty, 25 members; October 11, Eloy School faculty, 12 people; October 12, Casa Grande high school faculty, grade school teachers, and members of the school board and their families, about 50 in number; October 15, twenty seven Papagos from the Indian Training School in Tucson; October 21, eighteen members of the Pima tribe, from the training school at Sacaton; October 23, the Coolidge Church of Christ held an afternoon picnic at the monument with 45 attending; October 29, Campus Training School of Tempe, 22 children and seven adults.

TRAVEL

Visitor travel by states is as follows: of the 1,652 people who signed the register, 887, or 53.7 percent were residents of Arizona; 263 persons, or 15.9 percent were from California. Other states showing more than 20 visitors during the month were Texas, Oklahoma, Illinois, Ohio, Colorado, Missouri, New York, Pennsylvania, and Kansas. Michigan still fails to show the usually expected number of visitors, and we are curious to know why. In all, visitors from 42 states, the District of Columbia, Canada, Mexico and France signed the register during the month.

NEW EQUIPMENT

- 1 Four drawer file cabinet.
- 4 Sectional bookcase sections.

CASA GRANDE SIDE CAMP, CCC

- Job #50 - Shop: The cement window ledges were poured, a workbench installed, and doors and windows hung. Man days expended - 22.
- Job #51 - Warehouse: The door and window frames have all been set, the exterior plastering completed, and the window ledges poured. Man days expended - 56.
- Job #52 - Oil House: The roof of the wash-rack was completed during the month and the remainder of the inside wall plastered. The doors have been made, but are not as yet hung, nor are the windows glazed although the steel frames and sash have been installed. Man days expended - 2.

CASA GRANDE (CONT.)

Job #53 - Guide Service: Rodgers, Coyle, and Sheffield are still acting as regular guides, although Coyle spent part of the month in the Phoenix Indian School hospital recovering from an appendectomy. He returned to duty on October 5, but in his absence a new man, Scott Hall, broke in as a relief man and will continue to act in this capacity when needed. Savage is still helping Gene Stonehocker in the shop while Mungerro is acting as temporary clerk in the Headquarters office, and Vic Scholz runs the mimeograph and makes himself generally useful in the naturalist office. Man days - 138.

Job #62 - Equipment Shed: The walls of the building and the front supporting pillars have now been completed to the plate line. Man days expended - 112.

In addition to the above numbered jobs, 84 man days were expended in the erection of the new educational building at the camp, which is now completed except for the two gable ends, the partitions and the exterior painting.

Three man days, plus two Saturday mornings for the whole crew, were spent in cleaning up the camp generally, making new walk and driveway borders of stone set in cement and whitewashed, and in painting the interior walls of the mess-hall, wash-room, and store-room. The fire equipment was also repainted and moved to a new location nearer the center of the area.

Safety meetings were held each Thursday evening; attendance 100 percent.

Chaplain Hurt was a camp visitor on the 18th and religious services were held in the evening with an attendance of 18 men.

Camp Inspections were as follows:

October 10 - Major Roark, from Corps Area Headquarters, at Ft. Bliss, Texas.

October 13 - J. Haile, CCC Coordinator, from Phoenix.

October 18 - Lt. Kieling, from NM-2-A, and Chaplain Hurt.

October 24 - Captain Meadows, of the Arizona CCC District Headquarters, in Phoenix.

*****SNM*****

NAVAJO

By Milton Wetherill, in charge
Kayenta, Arizona

Visitors this month, 50

I took over the work at Be-ta-ta-kin Sept. 22 and found quite a bit of necessary work to be done on the trails. Most important was cleaning up the rock which had fallen from above the spring. There has been some talk about this rock falling, but I know of several others that have fallen which did more damage. The trail near the camp ground had washed during the fall rains and it was necessary to fill in several places. The trail at present is in good shape.

Interesting visitors for September were Alice Eastwood and John T. Howell, California Academy of Sciences, San Francisco, California, and Esbel McCracken, San Francisco, California. Alice Eastwood was at the Almo Ranch, Mancos, Colorado, in 1889. She collected plants at Mesa Verde and in all four states at the four corners from 1889 to 1894.

Earl Morris and family with friends were in, Earl has made several visits to Navajo in the past years. After visiting Be-ta-ta-kin, they departed for Rainbow Bridge. Aleth R. Huyett of Washington, D.C. was in with Bill and Katherine Wilson. Also, Dr. W. Rodgers of the Museum of San Diego, San Diego, California.

*****SWM*****

TUMACACORI

By Louis Caywood, custodian
Box 797, Nogales, Arizona

Visitors this month, 916.

October has been the month of in-between-seasons. No hot days nor any cold days have marred the autumn season. One or two days of dust storms were the only disagreeable features of the month.

Travel for this season has been normal with a total of 916 visitors coming in 243 cars. Of this number 829 were contacted or a percentage of 90.5. The figure of 916 is an increase over 801 for the month of October, 1937.

TUMACACORI (CONT.)

RANGER SERVICE

Mr. Theodore Cronyn went off duty at noon, October 5, to take accrued leave before reporting for duty at Canyon de Chelly National Monument. No one has yet been appointed to fill Mr. Cronyn's place.

MUSEUM

Three cases were cleaned and painted and the glass fronts were placed on these. This now leaves a remainder of only two cases which do not have the glasses placed. Light boards were placed over two cases completing them. Besides the few unfinished exhibits and the plastering where the plaster had to be removed in order to place the cases in the niches, the museum is in good shape. Following is a recapitulation of the museum:

CASE NO.	GLASS IN PLACE	LIGHT BOARD IN PLACE	EXHIBITS COMPLETE
1 & 2	No.	No.	Yes.
3	Yes.	No.	Yes.
4 (Diorama)	Yes.	No.	No. (Temporary)
5	Yes.	No.	Yes.
6 (Elec Mar)	No.	No.	No. (In Berkeley)
7 (No exhibit - removed from set up)			
8	Yes.	Yes.	Yes.
9 (Diorama)	Yes.	Yes.	Yes.
10	Yes.	Yes.	Yes. (Except for label)
11 (Diorama)	Yes.	Yes.	Yes.
12	Yes.	Yes.	No.
13 A	Yes.	Yes.	No.
13 B (Diorama)	Yes.	Yes.	No. (Temporary)
13 C	Yes.	Yes.	No.
14 (Proposed allegorical mural)			No.
15	Yes.	Yes.	Yes.
16	Yes.	Yes.	Yes.
17 (Diorama)	Yes.	Yes.	No. (Temporary)
18	Yes.	Yes.	No.
19	Yes.	Yes.	Yes.
20 & 22	Yes.	Yes.	No.
21 (Mass Diorama)	Yes.	Yes.	Yes.
23	Yes.	No.	Yes.
24	Yes.	No.	Yes.
25	Yes.	No.	Yes.
26	Yes.	No.	No.

TUMACACORI (CONT.)

NEWSWORTHY VISITORS

Miss Mary Lesley and Mr. Stearns were visitors on September 26. Miss Lesley will be remembered for her museum work in the Washington office.

Luis Gastellum made two visits on September 26 and October 23.

Mr. and Mrs. Kenneth Disher and Dr. and Mrs. Norman Gable were visitors on October 18. Mr. Disher is connected with the Indian Arts and Crafts Administration of the United States Indian Service. Dr. Gable is professor of anthropology at the University of Arizona at Tucson.

MUSEUM LECTURES

A lecture attended by 65 persons was given by Dr. Emil Haury on the evening of October 14 at the Tumacacori Museum. Dr. Haury spoke on, "The Indians of Southern Arizona", which he illustrated with slides. Following, a short series of natural color slides were shown depicting the gathering and preparation of the saguaro fruit.

Additional museum lectures are scheduled for November 4 by Dr. Russell Ewing and December 2 by Reverend Victor Stoner. Dr. Ewing will speak on, "The Mission as a Frontier Institution" and Reverend Stoner on, "The Spanish Missions of Arizona."

UTILITIES

The oil furnace in the museum building was tested on October 17 and works satisfactorily. The telephone was checked on October 24 and new fuses were placed in the set. The water and electric systems are in good working order.

MISSION GARDEN

The plans for the mission garden to be laid out in the patio of the museum have been received. It is hoped that by spring the work will be carried out so that a full season's growth can be developed by the plants.

ADDENDUM

Must say here that I am not inclined to agree with the Boss in his remark in the September reports "Ruminations" regarding there not being a place in the new streamlined (still incomplete) museum at Tumacacori for the well-worn robe of Padre Kino should it be found. The small glass cases - one on either side of the mass

diorama- to my way of thinking would be a grand place to put such a robe or robes were they to come into our possession.

*****SVM*****

EL MORRO

By Robert R. Budlong, custodian
Ramah, New Mexico

Visitors this month, 274.

Winter moves upon this part of the country slowly but surely, and our visitor travel steadily decreases. Our visitor attendance this month was 274 persons, arriving in 61 cars and two busses. Colder days have been responsible for shorter trips, the trip time dropping rapidly after visitors have passed the northeast corner of the rock and gone around on the colder north side out of the sunlight. Before much longer, very few visitors will attempt the inspection of inscriptions on that cold north side. Our office visits have been few and short, due to the construction of the addition to the old cabin and the consequent crowding of the old room as material was moved around to make space for the work on the cutting through of a new doorway.

WEATHER

Apparently more as a promise than just a threat, the skies have scattered a few light flurries of snow at us during the month. Temperatures have gone down, 18 degrees being minimum for the month, and 80 degrees being maximum. We have had but little precipitation, and the local farmers are hoping for good snowfall during the winter, the ground being very dry. During the month we had a few days of very high winds, and the blowing sand made field trips almost impossible.

WATER

Bids were received for the drilling of the well, and four prospective bidders inspected the chosen site. Since bids were to close on October 21 at headquarters, we are looking forward with interest to receipt of information on the awarding of the contract for the drilling.

QUARTERS

Last month we reported that we expected to start the construction of an addition to the shack the early part of this month.

The work was begun on October 3, and foundations of stone and logs placed. By the 6th, all walls were up and the rafters in place ready for the roofing. As we shut down work for that day, we received word that Public Works funds had been allotted for the construction of a custodian's residence, work to be started before January first. The new room was completed with little additional expense, and we are now living in it. It measures 16 by 20 feet in size, and is made of condemned railroad ties. Two windows were put in the east, or front side, and the new floor level constructed 17 inches below the level of the floor in the old shed, with the result that we have over nine feet of headroom in the front of the new room. Work still goes on, the custodian chinking between all ties with oakum and, while this chinking is not yet completed, the room is livable and gives us the greatest amount of space we have had in four years, with the exception of the space in the de Chelly house, which we occupied but briefly. The custodian is now completing a long table built against the east wall of the new room, under the windows. It is 16 feet in length, and is to be the office desk, laboratory table, lecture table, etc. Quite a little work remains to be done on the room, but this will involve no expense. With anything like a normal winter, construction of the custodian's residence will be interrupted by far-below-freezing temperatures, so the new room will be a blessing during the coming winter.

INSCRIPTIONS

The latex molding compound was received recently, and preliminary experiments conducted on a fragment of sandstone. Miss Bertha Dutton of the New Mexico State Museum who was visiting here with her father and Miss Hulda Hobbs, also of the Museum, wrote "Paso por aqui" on this fragment of stone, the custodian carved this lightly into the rock, the latex molding compound was applied, and stripped from the stone within a few hours. A perfect impression was obtained every tiny sand grain showing perfectly. This week the first application to one of the newer (1857) inscriptions was made, and a beautiful impression obtained.

Work on the old Spanish inscriptions is to begin the coming week. This process seems just about perfect for our requirements, and shortly we expect to send to your office the first of the resulting rubber molds. In a few days the custodian hopes to obtain some plaster of Paris to use in making some experimental casts. Detailed records and photographs will be made, of course, for the files. The amount of material received will be sufficient for only a few molds, but the results obtained are of such great value that they will more than justify the expense of the purchase of a quantity needed for the making of molds of each of the early Spanish

EL MORRO (CONT.)

inscriptions. It is believed that dilution of this material and application of it by spraying will prove most practicable for our purposes, in order to avoid the formation of air bubbles which occasionally result from application of the material with a brush. Your office will be kept advised of the progress of this work.

WILDLIFE

Six domestic cats were disposed of during the month, but tracks of others are observed promising prolonged hunting season. Our two owls now take up but half the space they formerly occupied. During the past week one of them killed and ate the other. The survivor has accordingly been christened "Two-in-One" and seems to be thriving.

GENERAL

The month has been a very busy one, in spite of the dropping off in visitor attendance. Most of the time has been taken up with the construction of the new room, but there has been considerable activity here otherwise. Mr. A. W. Shirley and his crew conducted survey operations here during the month. Incidentally, Boss, the rock must have eroded away remarkably during the past few days. The informational pamphlets that used to be distributed here gave the height of the rock as 300 feet, and when Shirley and his crew measured it, it turned out to be only 189 feet in height. Possibly the cold weather has caused it to contract.

Jack Diehl paid us a quick visit during the month. Last night we had the great pleasure of meeting Carolie McKinney for the first time, she and Lewis having driven down to deliver more of the Latex molding compound Dale had left at Chaco. We enjoyed their visit tremendously. They camped in their new truck, since two other visitors were occupying the new room, and another was occupying the kitchen. I think we need several guest rooms in the new residence to be constructed.

On October 22; a group of 78 pupils from the Gallup high school visited the monument, and were conducted around the inscriptions in three trips.

Our Indian Summer will probably pay us a brief visit, and then we expect increasingly cold weather and snows. The problem of communication with the outside, thought to be solved, becomes something of a worry. The custodian's short wave transmitter, which was being put through rigid tests in Long Island, New York, happened to be right in the path of the recent hurricane that devastated so much of that part of the country. We are sorry to report that

to date we have heard nothing relative to whether or not it survived the storm, but are hoping it came through it safely. If it did not, another will be constructed, and it is hoped that communication with the outside will be maintained during the winter, in the event we become snowbound for any length of time.

*****SVM*****

CANYON DE CHELLY

By Johnwill Faris,
Chin Lee, Arizona.

Visitors this month, 131.

Another month rolls around and de Chelly has been simply one grand world of its own. The Indians have certainly been busy with their harvest, drying peaches, corn, storing melons, etc. It is getting to be an old, old story, but Boss, words really can not do justice to the wonders of de Chelly. This is especially true in the spring and fall. Visitors simply marvel at the sights that we are able to show them. If any one monument shows itself and sells itself to the public, it is de Chelly. Pile after pile of corn is seen with from one to several women husking, and, of course, the pile of husked ears with the many colors of the Indian corn. This spread out to dry on both the ground and the hogan tops is truly a sight, especially looking down on it from a five hundred to one thousand foot cliff. One of the sad features of the fall is that the Indians are moving out and it will now be only a matter of several weeks until there will be little life in the canyons until spring. A cold snap about the middle of the month made us all hurry around a bit for fear we might get an early winter. It has broken now and we are going through a wonderful Indian summer. The canyons are both flowing some now and will until spring.

This travel month started with a group from the Sierra Club of Southern California. Ten members were in for two and one half days although not on our area that much time. They were a splendid group, and I enjoyed their visit very much. I noticed in showing them around at Antelope House in Del Muerto that one of the recent storms had washed in under our fence built early last spring. This means that some way will have to be provided for protection from washing. The road to Mummy Cave, while never much of a road, is becoming more and more in need of repair and I feel that the Park Service should do something about it if for no other reason than to facilitate inspections.

CANYON DE CHELLY (CONT.)

Mummy Cave is certainly one of the main features of the monument. You will hear more about this later in a special report.

While we are on the subject of roads, I might mention that the Indian Service is still working on the Ganado-Chin Lee road and in time this will be a splendid piece of road and will mean that many visitors will be coming in that miss us now. Other approach roads are being improved and there is little doubt but that a short time will mean many more visitors.

General details of the monument have been in line with regular routine. The canyons are dry in the lower portions and running more and more from the upper ends. The various Services have been very cooperative in any thing that has come up; the Indian Irrigation Service, for instance, in helping us with our pump that had an exhaust valve stick and was in need of a reset.

The visitors for the month total 131 which is about on a par with the same month last year. Several changes will be made in the reports that follow in accordance with recent memoranda. The weather, after all my bragging, is somewhat cloudy and, with a trip up the canyons tomorrow, I am sure hoping it holds off for another day. Will let you know more about this part of it in the next report.

*****SWM*****

CAPULIN MOUNTAIN

By Homer Farr, custodian
Capulin, New Mexico

Visitors this month, 3,500.

We have had approximately 3,500 visitors this month. I have been able to get a fairly accurate count this month as I have been working on the monument most of the time, and have met quite a number of very interested and interesting people from Kansas, Oklahoma, Colorado, Texas, California, New York, New Mexico, and possibly more than a dozen other States. Heading the list was one from Arizona, my assistant superintendent, Hugh Miller, accompanied by Jack Diehl from Santa Fe. This is the first trip for Mr. Miller to this monument and he, like Mr. Pinkley, was in a big rush to get back. Both of you are cordially invited to return any time.

Weather has been simply grand all month with some rain and no wind, and very warm all through the month; in fact, the trees here

CAPULIN MOUNTAIN (CONT.)

have not as yet lost their foliage. Our big crop of pinon nuts has not turned out so good as we find most of them are blighted. However, the birds and squirrels know the good ones from the bad and we have an extra large number of birds, squirrels, and deer.

I came very near a very large bob cat one day last week on the road, and we still have plenty of porcupines.

The extreme hard wind we had during the summer brought down some 30 or 40 trees just above the road end, as they were dying and becoming hosts for the Ips beetles, they have all been removed and the road has been cleaned thoroughly. With the work I expect to do tomorrow, the road will be in first class condition again.

The fence has all been changed as requested by Mr. Miller and Mr. Pinkley, a certain twenty four inch culvert has been dug up, fill made and relocated as per request of Mr. Nichl. Seven badly washed places have been filled some of them beginning as much as 30 feet below the road and filled to the level of the road with rock and cinders. All in all, the custodian and helpers have never put out such hard manual labor as we have this month for we found so much that really needed to be done. However the old volcano is just about shipshape again and, after tomorrow, I expect to take it a wee mite easier.

*****SWM*****

NATURAL BRIDGES

By Zeke Johnson, custodian
Blanding, Utah

Visitors this month, 91.

Report time comes once more, and I am very happy to say that all is well at this monument. The weather has been ideal for trail work. There have been 91 very interesting visitors, and I have contacted every one. I spent a lot of time with them and enjoyed every minute. I have hiked a lot and talked a lot, but I don't believe that I have done any hiking or talking in vain.

Rufus Johnson, the tree and flower man from Salt Lake City, was here for his fourth trip. He had his wife and two daughters and they were here for two days and nights. We hiked the 13 mile trip. He is very interesting to me as he knows every flower, weed, and bush and calls their names as I would call my kiddies. He always finds new specimens.

NATURAL BRIDGES (CONT.)

Two Dr. Calkins were here from Nebraska. After we had hiked to all of the bridges, they wanted to know what the fee was. I told them that they were as welcome as the flowers in May for what they had seen and what I had done for them. They said that it was the very best show and the most service they had ever received for nothing, and that they thought that Zion and Bryce were not in it at all with this monument for variety. You know, everybody sees things differently, but, of course, I agreed with them.

I was starting on the hike with two men and their wives, and, as we were going down the old trail to Coachman, one lady asked what caused the rocks to be gone from under the ledge. I told her it was just common wind erosion and the workings of nature. A little farther down the trail we came to a place where I had roughly placed five rock steps several years ago and one of the ladies said to the other, "Isn't it wonderful what nature will do! It looks almost as if those steps had been put there by man, but it's easy to see that the other rocks have decayed and left these in shape".

Talk about having to answer questions for the Federal "Writer's project; they are coming to me by the sheetfulls. I will just answer one for you:

"How did Devil Canyon get its name?"

Shortly after the pioneers landed in Bluff in 1880, men we sent out to explore the Blue Mountains country and build a road to where Monticello is located, called it Crooked Canyon as the road ran off one rock onto ten. A few years later, the old Danish bishop, Jans Nelson, went to the Blue Mountains after a load of poles, and when he landed back in Bluff, he had a cedar pole rawhided on for a double-tree stick, and a piece of oak for a single-tree. When he was asked how he broke his double-tree he said, "You know Fanny and Billy are too stout and they broke them all up trying to pull my wagon out of that devilish canyon." The name was then changed to Devil Canyon.

I wish that I could give you the answers to a few dozen other questions. I am always glad to answer, and I believe that I can give them correctly.

Now for the new trail! I took the first party over it on October 20, and I tell you right now that trail will be a joy forever. It is just where I have always wanted it, and it is nearly done, and the boys have done a wonderfully fine job. I wish that Jack Diehl could come and see it; yes, and all of you fellows

NATURAL BRIDGES (CONT.)

that are interested in trails. I am just as proud of it as I can be, and I know that the boys have done a very fine job, and that we have saved a lot of money by not having to hire a stone mason. The steps are larger than called for, and we have chiseled four of them in the solid rock, and the whole trail will be much better than I anticipated.

We have blasted out one toilet pit and will shoot out one more before we are through. We are putting them down five feet. We have about three weeks more to go, and will have a little money left to fix up a bit next spring.

I want to thank you, Boss, for all of your kindness to me. The other day several of my friends were with me at the Bridges and one of them said, "Zeke, we hear that you have been asked to quit your job next spring. It is too bad for a young man like you to be retired".

"Yes", I said, "it looks foolish to me to be retired when I am just in the prime of life. Gosh", I said, "I won't be 70 until next April. I am just as able as I was 20 years ago, but I will be glad to do just as my bosses want me to."

On September 12, I took a hike around the same shelf that my camp is located on in Armstrong Canyon, about one mile. In a dry spot underneath a big rock where I was out of the rain, I discovered a skeleton with skull and bones in perfect state of preservation. I went back to camp after my camera, and took pictures of the skull, but haven't had the films developed yet. The skeleton is lying on its right side with the left knee under the chin. If I tell people about it, everyone will want to see it, so I will keep quiet or I will have a job on my hands. The skull is very interesting, in perfect condition, and the teeth are very good and easy to photograph.

*****SWM*****

LOST:

The following books were sent out by the Southwestern Monuments Loan Library on August 26, 1938, and have not arrived at destination: Neararctic Collembola, or Springtails of the Family Isotomidae. #1339
Trees of the National Forests of Colorado and Wyoming #1178.
Revision of the North American Ground Squirrels #1813.

As other copies of some of the above have been issued, the lost shipment may be identified by the volume numbers and by the fact that the three books together constituted the shipment. It is possible that they may have been sent to the wrong monument and if any of the field men have received such a shipment, please notify the Headquarters office. D.S.K.

HEADQUARTERS

BRANCH OF MAINTENANCE

By F. E. Stonehocker,
general mechanic,
Coolidge, Arizona

During the month, the following work was performed by the maintenance department:

Built a cabinet and installed switches for the new transformer station to handle all power used on the monument, both at the new utility area and at the residential and headquarters area.

Installed entrance and power conduit, as well as interior wiring, in the new shop.

Painted gasoline pump, repaired office swivel chair, uncrated and inspected cooking ranges in storage, installed new range in King quarters, put up all heating stoves in offices and quarters (which necessitated cutting of new stove-pipe holes in fireplace chimneys in Pinkley and Soule quarters), and crated and shipped four A.B.C. oil heaters to Bandelier.

Checked-in roving ranger car (USDI #8113) and equipment and made a brief checkup and minor repairs on the car to put it in shape for assignment to Saguaro National Monument this winter.

Completed installation of cabinets and bracing in new naturalist truck.

Checked over new Ford pickup which was to be assigned to Chaco Canyon and adjusted carburetor and brakes. Also repaired oil-pressure gauge.

Installed new door glass in passenger car USDI #1803.

Ground the valves and put on new cylinder head and made a thorough checkup on engineers' car - #95,321 CCC. Tightened up all body and frame bolts and members.

Removed old, makeshift, wooden shelving in headquarters office storeroom, set up and installed the new steel shelving and installed new lighting circuit.

Built new wash rack at CCC camp shower room. Repaired and replaced urinal.

Removed door and door-frame between headquarters office and museum room, and bricked up, plastered, and kalsomined opening.

NEW EQUIPMENT

One Prestone tester.

One battery hydrometer.

*****SWM*****

BRANCH OF EDUCATION

By Dale S. King, assistant
park naturalist,
Coolidge, Arizona

Park Naturalist King spent most of the month in the headquarters office, except for a trip to Chaco Canyon National Monument to relieve Archeologist Foreman Gordon Vivian, who took several days of annual leave. King left headquarters the evening of Saturday, October 15, proceeded to Chaco Canyon and worked with the Mobile Unit until the evening of October 20. He returned to headquarters via Walnut Canyon and Mupakki National Monuments, reaching Coolidge at 10 P.M. on October 22.

Junior Archeologist Steen returned from annual leave October 12, and was on duty at the headquarters office during the month except for a one day trip on official business to Phoenix with Superintendent Pinkley.

Junior Naturalist Matt N. Dodge accompanied temporary Ranger Carleton S. Wilcox to Saguaro National Monument to arrange for the patrol of the monument during the deer season. Dodge spent two and a half days on this project, and the rest of the month at headquarters.

Enrollee-Mimeograph Operator Scholz was on duty throughout the entire month.

In addition to carrying on the routine and office overhead, considerable progress was made in advancing the program of this division. The museum preparation truck was completed and equipped ready for the field thereby greatly facilitating work in the several museums being developed. Establishment of a master filing system in the naturalist office will be of great aid there and form a basis for the filing of records of this branch in the field. During the month a number of colored 35 mm photographs were taken and made up into slides advancing the visual education project. Motion picture films were loaned to the custodian at Montezuma Castle for the purpose of an educational lecture, and several requests were received for illustrated educational programs. Chief among these was a request from the Mesa, Arizona, Public Schools for illustrated talks to all of the elementary school children of that city about the aims and ideals of the National Park Service as depicted in the National Parks and Monuments of Arizona.

Following is a resume of the time devoted by members of the staff to various projects during the past month:

BRANCH OF EDUCATION (CONT.)

REPORT OF NATURALIST ACTIVITIES FOR MONTH OF OCTOBER

	King	Steen	Dodge	CCC
<u>GENERAL OFFICE OVERHEAD</u>				
	<u>Days</u>			
Correspondence, (including 134 letters)	3-1/2..	3/4...	2-1/2...	0
Conferences and discussions				
With headquarters staff	1	..	1/4...	1-3/4...0
With N.P.S. personnel	1/2..	1/2...	0	...0
With visiting scientists				
Library (file, issue publ., etc.) . . .	1	..	1/2...	4 ...0
Reports				
Compile, process Sup'ts monthly rept.	1	..0	...12	...8
To Washington and Region 3	1/2..0	...	1/2...	0
Miscellaneous.	1	..	1/4...	0 ... 1/2
Publicity				
Prepare info. and publ. material . .	0	..	1/4...	1 ...0
Check Region 3 publ. releases . . .				
Miscellaneous				
Construction (paint, carpentry, etc.)	0	..0	...0	...3-1/2
Cleanup, inventory, maintenance. .	0	..0	...0	...2-1/2
<u>RESEARCH AND EDUCATION</u>				
Public Contact				
Prepare and deliver outside talks. .	0	..	1/2...	1/4...0
Relief guide duty at monuments . .	1/4...0	...	0	...0
Office visitors (informational). . .	0	..0	...	1/2...0
Museums and Nature Trails				
Planning and executing	1-1/4..1	...	0	...0
Acquire, pre., catalogue specimens .	0	..3	...0	...0
Acquire equipment and supplies . .	6-1/2..0	...	1/4...	0
Arboretum (plan, plant, maintain). .	0	..0	...0	...2-1/2
Visual Education				
Edit, file, record slides and movies	0	..0	...	1/4...0
File prints and negatives.	0	..2-1/4...	1/2...	4
Take and process photos.	0	..0	...	1/4...0
Miscellaneous				
Observation and bird band records. .	0	..0	...1	...0
CCC Camp educational program . . .	0	..1	...	1/2...0
Ruins Stabil. project administration	9-1/4..0	...	0	...0
S.W.M. Association projects. . . .	0	..0	...	1/4...0
<u>FIELD WORK</u>				
Field Trips.	0	..1	...0	...0
Protection Patrols	0	..0	...2-1/2...	0
<u>LEAVE</u>				
Annual	0	..13	...0	...0
Sick	0	..	1/4...	0 ...0
TOTALS FOR THE MONTH . .	25-3/4..	24-1/2..	28.....	21

BRANCH OF EDUCATION (CONT.)

CONFERENCES

Branch of Research and Information staff members have been very pleased with the Monday evening Southwestern Monument staff conferences which were instituted recently. They feel that these meetings have already brought about closer cooperation between the various departments, it is important, and have aided mutual understanding of each other's problems.

Considerable verbal instruction was given to temporary Ranger Carleton Wilder who will be stationed at Saguaro National Monument this winter. A generalized scheme for break-in of new personnel is gradually taking shape, so designed that new personnel in the future will progress through their training period more rapidly and, we believe, more effectively.

VISITORS

State Inspector Jack Haile; Project Superintendent William Stevenson; Ranger Ted Cronyn; M. E. Musgrave, of the Department of Agriculture, and Jimmy Wells, of the Indian Service; Temporary Ranger Carleton Wilder; John Cook of Grand Canyon; Assistant Landscape Architect Al Kuehl; and Kenneth B. Disher, of the Indian Arts and Crafts Board.

SOUTHWESTERN MONUMENTS LOAN LIBRARY

A standard filing scheme was worked out so that library books, pamphlets and reprints, and photographic prints will all be classified in the same system. When this system has been used for sufficient time to iron out preliminary errors, it will be made available for field men. It is planned that the same system shall be uniform throughout the Southwestern Monuments.

First major progress in the huge project of cataloging our great mass of photographs and negatives occurred during the month when CCC Enrollee Scholz was able to spend four days.

Card envelopes are being pasted in library books during spare moments.

Accessions to the Southwestern Monuments Loan Library consisted of 35 books, 25 periodicals, and 12 pamphlets.

BRANCH OF EDUCATION (CONT.)

REPORTS

The following reports were prepared:

- (1) Organized groups using campgrounds;
- (2) Annual reports;
- (3) Manuscript material prepared during the month;
- (4) Monthly report of educational activities.

PUBLICITY

Polly Lovrea used information gathered from this office in preparing a very interesting newspaper article dealing with the life of the Custodian at Wupatki National Monument.

Earl Morris in the Natural History Magazine for September had an article on Mummy Cave, Canyon de Chelly National Monument.

Former Engineer W. G. Atwell wrote "Three Roofs in One Thousand Years" in the American Roofer for July, 1938. The article described the construction of the roof over the Casa Grande.

TALFS

October 5: Matt N. Dodge; Inter-city Rotary meeting, Mesa, Arizona. Attendance: 50.

October 5: Charlie R. Steen; Kenilworth School, Coolidge, Arizona. Attendance: 150.

October 11: Charlie R. Steen; Pima County Archeological Society, Globe, Arizona. Attendance: 50.

MUSEUM PLANNING

The preliminary architectural study on the Walnut Canyon Administration and Museum building was looked over, and suggestions prepared for transmittal to the Regional Office.

Criticisms, mostly favorable, have been received on the recently issued White Sands Museum plan. These criticisms will be incorporated in the final preparation of exhibits whenever possible.

A small amount of progress was made in the planning of Bandelier exhibits.

BRANCH OF EDUCATION (CONT.)

CATALOGING

The remaining part of the Casa Grande Museum collection was photographed and individual photographs of each specimen placed on catalog cards. Completion of this work placed the Casa Grande catalog in a completely current condition.

EQUIPMENT AND SUPPLIES

Considerable correspondence was carried on in an attempt to obtain a vertical component seismograph for Sunset Crater National Monument.

Arrangements were made to obtain a considerable amount of prehistoric pottery, now in possession of the Taylor Museum at Colorado Springs, Colorado. It is expected that the Museum will make an apportionment of the materials some time in December.

Packing of the demountable cases in the Naturalist truck was completed, and this extremely helpful item of equipment is ready for use. Several pieces of equipment have not yet been received, but can be installed with little difficulty when they arrive.

ACCESSIONS FOR OCTOBER

- 2,000 photograph file envelopes for negatives.
- 18 charts of the poison mechanism of reptiles.
- 1 stone axe, and 1 stone club purchased on the Mescalero Apache Reservation several years ago. These implements were kindly loaned to the White Sands Museum by Mr. G. E. Ansley, 1985 N. Van Ness, Hollywood, Cal.
- 1 lot of Seri Indian artifacts, donated by Mr. G. H. Davis of Mesa Grande, California.
- 4 photostatic copies of a map of the Southwestern Monuments.

CASA GRANDE SIDE CAMP EDUCATIONAL PROGRAM

The following classes have been initiated and are being held regularly: General Construction, Auto Mechanics, Elementary English, Penmanship, Indians, and Photography.

RUINS STABILIZATION

Criticisms were prepared on a plan for the stabilization of the plaza at Aztec Ruins. This involved a statement concerning the excavation of two original rooms.

BRANCH OF EDUCATION (CONT.)

Some work was done on the preparation of an outline for the proposed cooperation of the National Park Service with outside agencies excavating on Service land.

An instruction session for several of the Southwestern Monuments personnel who will have work with ruins stabilization was organized and will be held at Wupatki National Monument shortly after the first of November.

SOUTHWESTERN MONUMENTS ASSOCIATION

The sales procedure for publications of the Southwestern Monuments Association was laid out and necessary correspondence issued.

PROTECTION PATROLS

The Headquarters Branch of Research and Information cooperated with temporary ranger Hilder in instituting a rather vigorous patrol which must be made each year to curb poaching on the deer herd in Saguaro National Monument.

*****S.N.M.*****

COMPARATIVE VISITOR FIGURES

By The Boss

You wouldn't think there was any dynamite or deep feeling about a bunch of visitor figures, would you? Well I can tell you there is and we are going to have to pull them out of this report because of the fact that we can't seem to find simple enough words in the dictionary to explain what we are driving at.

It developed in last Monday night's taurian session that our own men right here in headquarters thought the heading on this page meant that we were trying to build up a lot of competition between monuments and between men as to holding visitors the longest possible period of time whether the visitor wanted to stay or not.

It was reported that some of the men on the jobs were saying that the Boss was crazy to think that length of time was any factor to be proud of. That they could go out and hold a bunch of visitors, to the great disgust of the visitors, double the length of time, etc.

COMPARATIVE VISITOR STATISTICS (CONT.)

If there is any such idea as this abroad, it certainly needs correcting. What I have been driving at is that: OTHER THINGS BEING EQUAL, that man who has the higher average time on a thousand or ten thousand parties has delivered more service and is the better man. If you can't read that simple qualifying clause along with the rest of the statement and apply it in interpreting the statement, why blame me?

I have heard this talk, about going out and doubling the time of the visitor's stay, made by several men. Of course you can do it on the individual party, but did you ever do it on the average of a thousand parties? Do you want to take a little bet on being able to do it? Well, trim the statement a little hereafter, because you can't do it!

I know one man who set out to show me one month that he could put his blamed average over the roof if he wanted to, and he laughingly told me how crestfallen he was to find at the end of the test that his average had fallen!

I know another man who tried his best, month after month, to raise his average time for his museum talk and couldn't do it. I don't mean double it, he was trying to pry up a 15 minute average three or four minutes.

So when you talk about the ease with which you can voluntarily double your average trip time, will you pardon me if I smile? And anyway, if you can do it, why haven't you?

I have been told a thousand times that our figures, now being gathered, are quantitative figures only, as though that were some sort of bar sinister against them. I don't think the statement is quite precise, because, OTHER THINGS BEING EQUAL, the poor talk will not hold quite as high an average as the good talk and therefore we might suspect the low average man gives a poor talk and then check our suspicion with a personal visit.

I only wish we had some way of gathering figures which would show the quality of the service delivered as well as the quantity, but up to last night no one has yet been able to figure out such a method and we are therefore helpless for the present in that direction. These figures on quantity of service are so valuable, in so many ways, that we shall continue to gather them. We will have to discover poor quality of service by personal visit and examination: after all, a bad talk is a good deal like a bad egg, you don't have to go very far into either before you suspect there is something wrong.

*****SWM*****

CASA GRANDE VISITOR STATISTICS

By The Boss

Trip Data

Three hundred twenty five field trips and 220 museum trips prove to us that the winter business at Casa Grande is not far away. We struck bottom in July and August and are now on our way up.

The 106 man days worked cut the intensity of the trips down to 5.1 half trips per man day, which is a little less than the previous month of 5.4.

Number of visitors jumped sharply. Whereas for four previous months we had been running in the 1400's in the field trips, this month we jumped to 1936. Whereas we had been running 1100 and 1200 in the museum we have jumped to 1731. We are definitely on our way to the winter peak.

	Trips		Time		Persons		Days	$\frac{1}{2}$ Trips
	Field	Museum	Field	Museum	Field	Museum		
October	325	220	11354	5330	1936	1731	106	5.1
September	274	204	9890	4701	1498	1209	88	5.4
August	286	199	10039	4543	1412	1161	99	4.8
July	237	184	9279	4383	1485	1261	90	4.6
June	256	207	9154	4486	1404	1171	94	4.9
May	319	232	11757	5353	2232	1983	100	5.5
April	357	242	12638	5201	3168	2716	113	5.3
March	335	199	12159	4202	2995	2330	94	5.6
February	462	338	15573	6826	3953	3004	102	7.8

In the trip table, it can be seen that Bicknell was the pinch hitter, being busy with other monument matters. Egermayer had desk work connected with the 24 man spur camp, and also other outside matters. Of the four CCC boys, Coyle worked only 16 days, being in the hospital the remainder of the time with an appendectomy, and Hall came in for 12 days to take Coyle's place.

Sheffield again leads with the greatest number of trips as a whole and the highest average number per working day. Rodgers turned in a good record but not quite good enough to beat Sheffield.

CASA GRANDE VISITOR STATISTICS (CONT.)

	Groups		Time		Persons		Days Worked	$\frac{1}{2}$ trips per day
	Field	Museum	Field	Museum	Field	Museum		
Rodgers	98	41	3247	894	519	360	23	6.0
Coyle	27	50	880	1193	244	570	16	4.8
Sheffield	102	66	3280	1161	546	359	23	7.3
Hall	47	16	1607	347	237	76	12	5.3
Egermayer	44	39	2255	1362	310	278	25	3.3
Bicknell	7	8	385	373	80	68	7	2.1
	325	220	11654	5330	1936	1731	106	5.1

Individual Guide Data

In the guide time table, both Egermayer and Bicknell can be ruled out because they did not take run-of-the-mill parties but were pinch hitting, which means they were handling lunch-hour parties, late parties, etc. which, grouped together, upset the average time and do not make fair comparisons.

Hall, the new man, would be a surprise with his high field trip average of 34.2 minutes and his very good museum average of 21.6 minutes if we did not know that he had been guiding at Pueblo Grande Ruin near Phoenix in another CCC camp. His previous experience helped him to get away with a flying start here.

As Al. points out in the Casa Grande report, the pendulum swing of up and down for the monthly average trip time at Casa Grande has been broken, and we have not yet been able to figure why it should have held as long as it did.

	Ruins			Museum			Total		
	Oct.	Sept.	Aug.	Oct.	Sept.	Aug.	Oct.	Sept.	Aug.
Rodgers	33.1	35.8	33.0	21.8	22.8	20.3	54.9	58.6	53.3
Coyle	32.6	35.2	33.3	23.9	23.0	21.2	56.5	58.2	54.5
Sheffield	32.2	29.6	27.9	17.6	18.8	18.6	49.8	48.4	46.5
Hall	34.2	--	--	21.6	--	--	55.8	--	--
Egermayer	51.3	48.8	49.8	34.9	27.2	33.2	86.2	76.0	83.0
Bicknell	55.0	46.6	43.0	46.6	46.9	36.5	101.6	93.5	79.5
	35.5	36.1	35.1	24.2	23.0	22.8	59.7	59.1	57.9

*****SWM*****

AZTEC RUINS VISITOR STATISTICS

	Days worked	Groups		Time		Persons		$\frac{1}{2}$ Trips per day
		Field	Museum	Field	Museum	Field	Museum	
T.C.M.	10	3	15	230	480	16	65	1.8
J.W.B.	22	48	33	1840	1030	281	170	3.9
Bud	22	95	50	3300	1145	471	242	6.5
N.Y.A.	29	56	127	2145	2650	335	677	6.3
Total Oct.	83	208	250	7515	5005	1103	1154	5.2
September	77	273	273	11255	6145	2569	2347	7.1
August	88	303	323	14200	8789	3274	3019	7.1

	Ruins			Museum			Total		
	Oct.	Sept.	Aug.	Oct.	Sept.	Aug.	Oct.	Sept.	Aug.
Miller	78.6	43.7	52.9	32.0	26.3	30.2	108.6	70.0	83.1
Brewer	38.3	41.8	44.1	27.1	26.8	28.4	65.4	68.6	72.5
Bud	34.7	--	--	22.9	--	--	57.6	--	--
N.Y.A.	38.3	35.2	33.7	20.0	20.8	24.3	61.0	56.0	61.1
Average	37.2	41.2	46.3	23.0	24.3	27.2	59.2	65.5	73.5

The 202 field trips and 230 museum trips, as compared with August and September, show that Aztec is heading for its winter season, the intensity being 5.2 half trips per man day as against 7.1 for August and September.

Miller was in the hospital most of the month with an appendectomy. Of the others, Bud handled the greatest volume of field trips and the NYA helpers handled the big end of the museum trips.

*****SWM*****

Carleton Wilder has taken charge at Saguaro National Monument for the next few months. Carl has been working with the Service the past summer at Grand Canyon and thus needs but little breaking in when it comes to handling visitors in the Park Service manner. He came with us just as the deer season opened and is pretty busy with all the details of guarding his 100 square miles of monument against poachers, and with settling down on his new job.

*****SWM*** **

OCTOBER VISITORS TO SOUTHWESTERN MONUMENTS

By The Boss

As nearly as we can gather the figures and work out the estimates, 21,970 persons came to see us last month. Nearly 10,000 of these came to the wrong monuments, White Sands and Capulin, where we had not the personnel to give them service, and several thousand others came to monuments where for any one of several reasons the service was temporarily out. In all, some 14,000 persons got no service. This is not as bad as it sounds. If we could fill a White Sands job which is now waiting to be filled and then get one permanent position at Capulin and get it filled, we could go a long way toward meeting and giving information to that, at present, unreached portion of our visitors.

As it was, we gave 2281 trips altogether; 1,326 field trips and 955 museum trips.

The 1,362 field trips averaged a length of 49.5 minutes with an average of 5.06 persons in the party. This was 212 more trips than we gave a year ago and they were given to 875 more persons.

The 955 museum trips averaged 18.8 minutes each. This was 297 more trips than last year and there were 1504 more persons. The average museum trip was .6 minute longer than last year.

We have a sharp drop from last month of course. It is to be expected at this point in the year. Our summer tourist has gone and the winter tourist in the deep Southwest has not yet come in to take his place.

*****SWM*****

ARCHES

By Harry Reed, custodian,
Moab, Utah.

Visitors this month, 55 (estimated)

(Note: The following two reports through unavoidable circumstances arrived too late to be included among the Field Reports. Rather than omit them entirely, they are being included here - Ed.)

For the first ten days of October, heavy rains fell in the vicinity of Arches National Monument. The temporary road across Courthouse Wash was completely washed away for the fifth time this

VISITOR STATISTICS FOR OCTOBER, 1938
SOUTHWESTERN MONUMENTS

Station	Employees		Field Trips			Museum Talks			Unattended	Total Inform-ational Contacts	Total Travel	Per cent Con-tact
	Per.	Temp.	No.	Att'd	Time	Av.	Time	Att'd	Av. Time			
Arches	1	---	---	---	---	---	---	---	---	---	55	---
Aztec Ruins	2	3	206	1103	751.5	5.4	37.2	1154	5.0	23.0	1349	167
Bandelier	2	3	19	231	605.0	3.9	102.5	147	770	3.5	613	---
Canyon de Chelly	1	---	---	---	---	---	---	72	435	3.6	131	---
Capulin Mountain	1	---	---	---	---	---	---	---	---	---	3100	---
Casa Grande	2	---	---	1936	116.5	5.9	35.5	1731	5330	7.8	2471	148
Chaco Canyon	1	---	---	---	---	---	---	130	630	5.3	403	---
Chiricahua	1	---	---	513	313.5	4.6	45.3	---	---	---	484	---
El Morro	1	---	---	250	2920	5.2	60.9	9	230	2.2	274	---
Gila Cliff Dw.	---	---	---	---	---	---	---	---	---	---	10	---
Guan Quivira	1	---	64	259	3950	4.0	61.7	---	---	---	259	---
Hovenweep	---	---	---	---	---	---	---	---	---	---	10	---
Montezuma Castle	2	---	---	495	571.7	3.3	47.2	349	1364	3.3	601	137
Natural Bridges	1	---	25	91	4190	3.5	182.1	---	---	---	91	---
Navajo	---	---	---	---	---	---	---	---	---	---	50	---
Organ Pipe	---	---	---	---	---	---	---	---	---	---	900	---
Pipe Spring	1	---	---	60	560	3.5	95.6	---	---	---	268	---
Rainbow Bridge	---	---	---	---	---	---	---	---	---	---	20	---
Saguaro	---	1	---	29	---	4.1	---	7	10	3.5	1300	---
Sunset Crater	---	---	---	---	---	---	---	---	---	---	447	---
Tonto	---	1	---	---	---	---	---	---	---	---	274	---
Tumacacori	2	---	---	735	3110	5.0	27.2	620	1960	5.3	916	150
Walnut Canyon	1	6	113	789	6670	6.6	56.0	525	1925	2.7	964	136
White Sands	2	---	---	---	---	---	---	---	---	---	6720	---
Wupatki	1	---	45	129	3435	3.8	77.6	---	---	---	230	---
Yucca House	---	---	---	---	---	---	---	---	---	---	30	---
Total	24	19	1326	6711	65714	5.06	49.5	4774	17999	4.9	21970	53.3
Last Month	24	20	2272	10288	105701	4.5	46.5	5796	23287	4.9	36838	43.6
Last year	23	5	1114	5836	49039	5.2	44.0	3270	12016	4.9	17412	52.5

ARCHES (CONT.)

season. The road has been re-routed at this point and an expenditure of approximately \$200.00 by the State Highway Department has put this and other bad points along the road in very good condition.

VISITORS

Although I have had the opportunity to visit the monument only twice this month, I have received reports from various local people and basing my estimate upon these reports, would say that about 150 persons visited the Windows Section during October. The two visits I did manage to make were with very enthusiastic parties. Dr. Williams, our old pinch hitter, has been out with two or three parties, and his reports that they were very much pleased with what they saw. I feel sure that we are going to have a much busier season next year than we had this year. I have had many letters inquiring about the arches, all of which I have answered. Surely we will reap some benefit from so much publicity.

MISCELLANEOUS

We are very much in need of some kind of temporary entrance signs. During the season of the year when no one is stationed at the monument, it is necessary to direct visitors from Moab or Thompsons'. With the entrance road so poorly marked it is difficult for visitors to find it. The temporary road is well marked at all points except where it intersects U.S. 160. If we had two signs with large plain letters capable of being read at motoring speed, they would be a very great help in directing the public to the monument.

SWM

MOBILE UNIT

Ry Gordon Vivian, foreman,
Chaco Canyon, New Mexico.

During the month of October, 386 man days were expended in the following amounts among five jobs:

Support Walls, Bonito. . . .	122	Drain Plaza & Rooms, Bonito. . . .	35
Waterproof Rooms, Aztec. . . .	99	Support Walls, Minor Ruins	35
Repair Capping, Bonito	95		

Prorated among the above jobs, excepting that at Aztec, are camp details of completing the pump house and installing the new pump, preparing the water system for winter, insulating the shower system and hauling wood. For the new pump, we have constructed a freeze-proof room below ground level at the side of the well. The pump has been installed for about three weeks now and it has surely relieved the strain on our cranking and mechanical abilities. I checked it when first installed and it delivers its rated output through our 1800 feet

MOBILE UNIT (CONT.)

of line to the camp.

SUPPORT, BONITO

These small jobs completed this month represented a lot of scattered work in the east section which we are trying to get cleaned up. It seems that we are always trying to do this and never quite succeeding. A lot of these 122 man days were spent moving the runways and scaffolding around from one second story hole to another.

Following is a summary by rooms of the work completed this month:

Room

- 169 One cu. yd. masonry repairing foundations of north wall broken down where a doorway extended below present ground level.
- 170 One sq. yd. masonry repairing break in face of the east wall, second story.
- 182 Four cu. yds. masonry replacing fallen wall veneer on the east wall. A large section just above the first floor ceiling beams had fallen. The top of this break was covered with concrete capping which, though it had not fallen, was badly cracked. Also repaired was one doorway, south wall.
- 183 Four cu. yds. replacing large sections of veneer fallen from breakdown of doorways and wall top, second story. Three doorways rebuilt at first story.
- 229 Two steel beams placed under overhanging wall, second story. Two concrete plates built for beam supports, two sq. yds. surface repair after placement of supporting beams.
- 233 One sq. yd. masonry repair to foundation.
- 243 One cu. yd. repairing three beam holes which had broken through entire width of the wall at the second story.
- 253 One cu. yd. repairing two crumbling beam holes and a small window. One steel beam placed under a short section of overhanging wall, north end of the room.
- 259 Five cu. yds. completed concrete cored "L" buttress against second and third floor break in east wall. One doorway completely rebuilt at third floor level.
- Kiva C Seven sq. yds. repair of foundation of enclosing wall, northwest exterior corner.

MOBILE UNIT (CONT.)

Kiva D One sq. yd. minor repairs to foundation of bench damaged this fall.

Total: 16 cu. yds., 12 sq. yds., five doorways rebuilt, steel beams placed as supports under walls of two rooms.

CAPPING

Of straight capping not connected with the completion of repair work, the following jobs have been completed:

Room

178-179 12 yds. flat, two course capping replacing old concrete cap.
Nine yds. vertical covering of exposed ends of broken walls.

182-183 18 yds. flat, two course capping replacing old concrete cap.

Kiva E (top) 25 yds. flat two course capping. This replaces the concrete which was removed last spring.

Kiva F (top) 26 yds. flat two course capping. Only a portion of this kiva wall was covered with the old concrete. The rest was uncapped.

Kiva J (bench) 18 yds. flat single coat.

251-252 11 yds. two course. The west walls of these two rooms form the east limits of the area around E and F which was formerly covered with the concrete capping. They were capped at this time to form one unit with E and F.

Wall between C and H (unnumbered on plan) six yds., two course.

Total: 104 sq. yds., on wall and bench tops, nine sq. yds. of vertical protection on sharp wall breaks.

WATERPROOFING, AZTEC

After the completion of five rooms draining into the central plaza, work was transferred to the west side where a series of four rooms are now being waterproofed and drained as a unit. In addition to the roofs leaking badly, what water was turned by them ran down the sides of the exterior wall and entered the rooms just below ground level. The drainage from these rooms is now being run together and tiled away to an irrigation ditch at the west side of the ruin.

MOBILE UNIT (CONT.)

WALL SUPPORT, MINOR RUINS

This work, job 1016-20, has been carried on at Pueblo del Arroyo and consists of repairs to walls and foundations in the unexcavated area of the site. We have a copy of Judd's plan of this ruin which Custodian McKinney got for us, but it carries room numbers in the excavated portion only. We are numbering the rooms separately as they are repaired.

Room No. (Repaired)

- 1 Four yds. of foundations and veneer repair, one yd. capping of completed repair.
- 2 Four yds. of foundation and veneer repair, one doorway rebuilt, two yds. capping of compl. to work
- 3 Three sq. yds. foundation, one window. (incomplete)

DRAINAGE, BONITO

Awaiting a detailed plan for draining the east plaza and the rooms surrounding it, we are constructing the exterior part of this system which will carry the run-off from the plaza and also drain the series of 16 exterior rooms in the southeast section. At present we are lowering the level of the debris along the outside of this series of rooms below that of the fill inside.

*****SWM*****

BRANCH OF ACCOUNTING

By Bertha W. Soule, chief clerk,
Coolidge, Arizona.

Vouchers prepared during the month, regular appropriations,	52	
Vouchers prepared during the month, CCC	138	190
Purchase orders issued, regular appropriations, Hdqrs.,	52	
Purchase orders issued, CCC	122	174
Allotment ledger sheets prepared, regular appropriations,	167	
Allotment ledger sheets prepared, CCC	85	252

Expenditures:	Total for Month	To Date
1491000 National Park Service, 1939	\$5,966.77	\$28,204.95
148/91000 National Park Service, 1938-39	67.11	521.52
14-1010 Roads and Trails, NPS	189.00	943.63
Civilian Conservation Corps	8,528.91	29,146.86

*****SWM*****

PERSONNEL

By the Boss and others.

Jim and Mac Luther report the arrival at their house of Sandra Jane Luther on October 19. The young lady weighed seven pounds 10-1/4 ounces and mother and child are doing well. Jim is in charge of Colorado National Monument which is under the jurisdiction of Mesa Verde National Park.

Eina Bicknell came in from her summer on the coast and then she and Al went back to Long Beach on a ten day trip. They are now settled down at Casa Grande for the winter.

We learn that Tommy Onstott has had to drop out of school because of teething and other health troubles. The grinders are some impacted wisdom teeth and we think Tommy can assure you that they are no joke.

A change-of-address card informs us that Bernice and Alfred Peterson are near Socorro on the Rio Grande River.

Irving McNeil has gone to Washington, D.C., and will be in school there this winter.

Jimmie and Sallie Brower at this writing are on their way over to their new station at Navajo National Monument.

Carroll Miller took time out to go down to Albuquerque and have an appendix out. He recovered in good time and is now back on the job. The difficulty with the Miller family at this writing is that Amelia and the kids are down with the measles and Carroll is quarantined out of the house. It begins to look as if 1938 isn't a lucky year for the Miller family.

Don Egermayer brought back the biggest buck that has been taken in the Santa Ritas this year and shared generously with the rest of the personnel. He tells a good story about sleeping on the ground the first night and, when moving a dozen good sized rocks the next morning, he found a centipede or scorpion under about every other rock. The second night Ruth slept in the car, the ground being too crowded.

Charlie Carter has just spent a week at Chiricahua helping in landscaping around the administrative and residential areas.

PERSONNEL (CONT.)

We are making a final cleanup in those areas and Charlie says it is going to have a fine general appearance.

Woodrow Spires was over the other day and says he may have to drop out of school this year, which will be too bad.

As this is written, Dale King and Charlie Steen are leaving for a field trip to the Flagstaff monuments to plan and start ruins stabilization work at Hupatki and Walnut Canyon. They are taking out the new panel body truck, which has been attached to their division, for its first field run.

Luis Castellum took a day off to get some glasses fitted during the past month. The Boss also had to have his glasses brought up to date, and Parke is next on the list. Charlie Steen has been having considerable trouble and is in Phoenix today having his eyes examined. If this keeps up we had better get together and let a contract. Anyway it is pretty good inferential evidence that we are doing a lot of desk work when four of us get fitted for eye strain within a couple of months.

Frank and Corabeth Fish and the mirrors are all back home safely after vacation in Arkansas. We haven't seen them yet for first hand news, but the report reaches us that they had a good time.

Also Earl and Betty Jackson have returned from annual leave which was spent in New England with Betty's folks.

Report reaches us by the grapevine telegraph that Paul Beaubien returned from his annual leave by himself but married. More complete reports on this next month.

Gil Philp is in the office today preparing to go over to Tonto to take over that monument for a little while and get some road work and trail work done. Jane remains on the coast for a while longer and will then join him.

The current report is that an examination of the ice cave east of El Morro is to be made soon by Regional Office technicians, and that Cy Harkins and Bob Budlong are to help out. As ice caves go, we think that one stands pretty close to the head of the list, and we think we could administer it from El Morro at a minimum charge.

Ted Cronyn took some annual leave during the month and went over to his old grounds in Yosemite where he says he had a good time meeting the fellows he had worked with over there a few years ago.

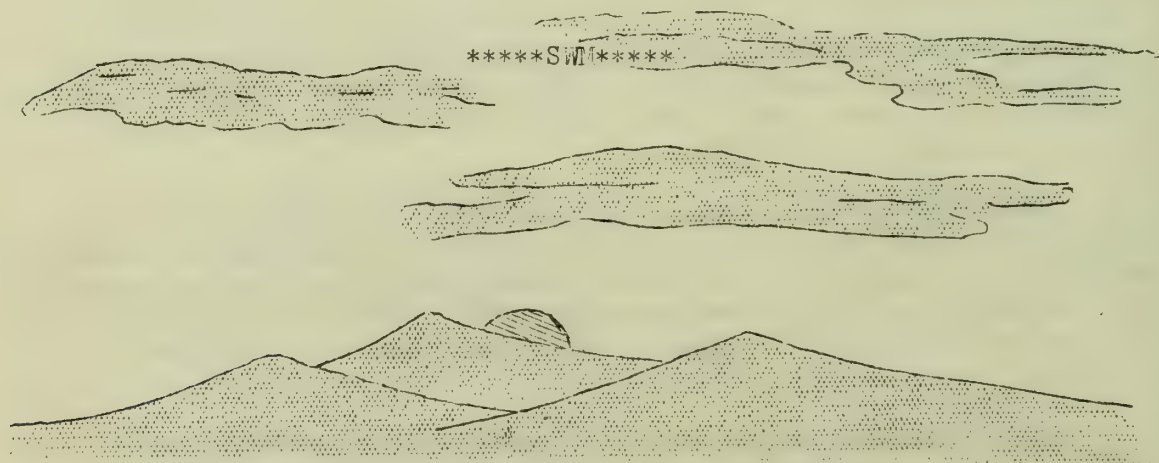
PERSONNEL (CONT.)

Papers have finally come through for our new headquarters clerk-stenographer, Robert Petrie. Bob is a local boy coming from our sister town of Mesa and getting his training at the University of Arizona. He has had previous experience in government service coming to us from the Navajo Agency at Window Rock, Arizona. Parke Soule reports that Bob is breaking in mighty well. As a sideline this month, he cut the stencils for this monthly report.

Monday evening is conference night at Headquarters. The Boss, Hugh, Parke, Dale, Charlie and Natt informally discuss the various phases of their jobs, any problems that have come up, or any new ideas that seem worth trying out. As the organization gets bigger and more complex, there is a greater need for an informal clearing house so that our right hand may know what the left is doing, so to speak. Already several meritorious ideas have come out of these weekly meetings.

Bill and Sallie Lippincott stopped by for a few minutes on their way to Wide Ruins Trading Post which they have taken over up near Chambers, Arizona. They are both very much in love with the Southwest and with the Navajo Indians of northern New Mexico and Arizona. Among their plans is the construction of two Navajo-type hogans for guest rooms, and they expect all of their Park Service friends to make use of them. We all wish Bill and Sallie the very best of luck in their new venture.

Flash! We have just learned that the new H.C.H.P. at Walnut Canyon is the former Miss Lois Baldwin of Denver, Colorado.



THE Supplement

S-M MONTHLY REPORT

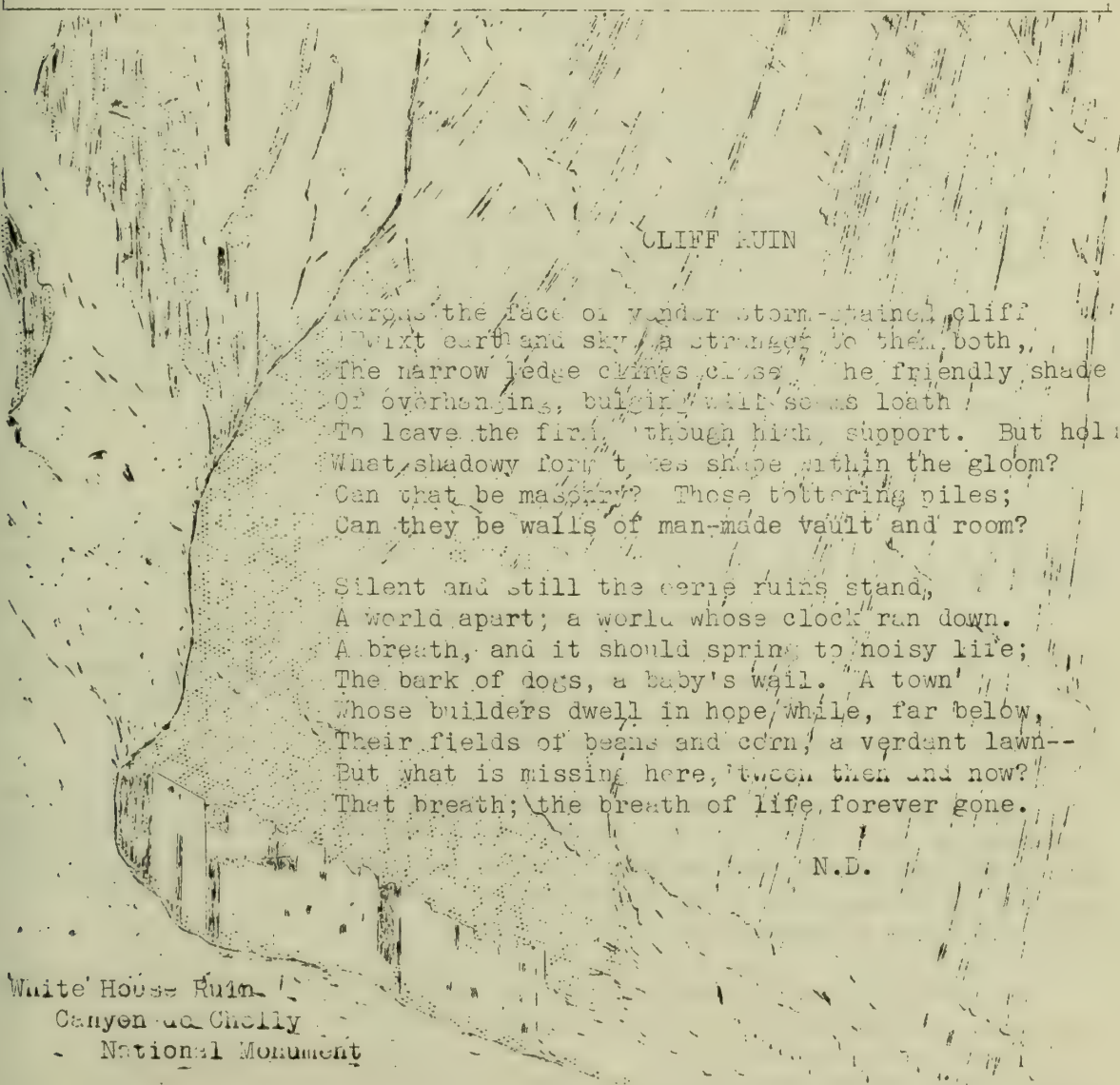
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SUPPLEMENTAL OBSERVATIONS



CLIFF RUIN

Across the face of yonder storm-stained cliff
Twixt earth and sky, a stranger to them both,
The narrow ledge clings close to the friendly shade
Of overhanging, bulging walls seems loath
To leave the firm, though high, support. But hold!
What shadowy form takes shape within the gloom?
Can that be masonry? Those tottering piles;
Can they be walls of man-made vault and room?

Silent and still the eerie ruins stand,
A world apart; a world whose clock ran down.
A breath, and it should spring to noisy life;
The bark of dogs, a baby's wail. "A town"
Whose builders dwell in hope, while, far below,
Their fields of beans and corn, a verdant lawn--
But what is missing here, 'twixt then and now?
That breath; the breath of life forever gone.

N.D.

White House Ruin
Canyon de Chelly
National Monument

MONTEZUMA CASTLE FISHES

By Earl Jackson

On September 2, Earl L. Hubbs and family of Ann Arbor, Michigan, paid us a visit. Mr. Hubbs is with the Museum of Zoology of the University of Michigan and is considered one of the outstanding authorities on fishes in the United States. In preparation for a text he is to write, he collected some fish specimens from the Verde River and Heaven Creek. There follows a list of the fish species he has identified from these two streams. Those names preceded by an asterisk (*) were collected on Montezuma Castle National Monument with Mr. Hubbs and family.

Catostomidae - Suckers

Ayrauchen texanus - Humpback Sucker or Blackback Sucker

*Catostomus commersoni - Gila River Sucker

*Pantosteus clarkii - Gila River Mountain Sucker

Cyprinidae - Minnows

Cyprinus carpio - Carp

*Alosa oscula oscula - Dace. Tentatively, Spring Dace.

Alosa chrysogaster - Dace

Gila robusta robusta - Bony Tail, also Verde Trout, Gila Trout.

Notropis robitis - No common name, very rare, found on ripples.

Neda fulgida - Neda Minnow.

Centrarchidae - Sunfish

*Lepomis cyanellus - Green Sunfish Perch.

Ameiuridae - North American Catfishes

Ictalurus lacustris punctatus - Channel Catfish.

*Ameiurus n. nebulosus - Mud Catfish.

Of the fishes listed above, the carp, sunfishes, and catfishes were all foreign to the region west of the Rocky Mountains until introduced by white men. The carp was introduced from Europe and Asia.

*****SWM*****

NATURE NOTES FROM CASA GRANDE

By A.T. Bicknell

Apparently the Gambel Quail, which have been pretty well scattered during the summer, are in the process of bunching up for the winter. This condition was first noted here on the monument about September 13, but a small covey of 17 birds, led by one which has a crippled leg, has been feeding around Vah-ki Inn since the first of September.

The Squawberry of Tomatillo bushes (Lycium sp.) on the monument began leafing out during the first week in September. This shrub loses its leaves in the spring and remains dormant throughout the summer. The main crop of blossoms appears in December and January, but a few blooms were noted on local plants October 10.

A Western Mourning Dove, which was found nesting near the new shop building on September 10, has now vacated the nest. There is no sign of

CASA GRANDE NATURE NOTES (CONT.)

the two eggs which it contained, and it is doubtful if they hatched. We had thought that this was a bit late in the season for nesting, but perhaps this was an exceptional case.

Continuing some observations made last month concerning the snakes feeding on the Casa Grande Ruin bats, none have been observed during the past month although something is certainly killing the bats. For the last two weeks, hardly one morning has passed without the guide finding from one to three bats lying on the floor of the ruins, either nearly dead or so badly crippled that they cannot fly. Whether or not these are injured by snakes is something that will not be yet be able to determine. Today Peehr reports from eight water bat wings in the east doorway of the ruin each morning. Whatever kills the bats evidently has no use for the wings.

SWM

WALNUT CANYON WILDLIFE

By Paul Beaubien

The water trap has been overhauled and placed in operation. The following 52 birds were handled:

	<u>New</u>	<u>Repeat</u>	<u>Return</u>
Chestnut-backed Bluebird . . .	6	C	C
Crossbill	21	1	C
Pygmy Nuthatch	10	1	3
Rocky Mt. Nuthatch	2	C	C
Evening Grosbeak	6	C	C
Hepatic Tanager	1	C	C
Pine Siskin	1	C	C
Total	47	2	3

One coyote skeleton and one female deer skeleton have been collected. A dead Arizona Hepatic Tanager, female, was found, and the skeleton cleaned and dried.

SWM

OBSERVATIONS FROM THE CHACO

By Homer Hastings

Heavy rains which have fallen since the last report have greatly improved the vegetation. The grass was revived by the first moisture and in a surprisingly short time it had headed out and a good crop of seed is being produced. Blue Gramin Grass and Side Oats Grass are the most abundant, and at least ten other species are represented here.

The most conspicuous flowers now blooming are the four o'clocks (*Mirabilis multiflora*), smelling sunflower (*Veronica encelioides*), and a wild aster.

OBSERVATIONS FROM THE CHACO (CONT:)

A plant which looks as if it may be a gourd is coming up in several places near Bonito. Wild gourds are common in the vicinity of Albuquerque, but none have been noted in this area. It is hoped that these plants will develop far enough so that they may be definitely identified before being killed by frost.

*****SWM*****

CHACO CANYON BIRD BANDING

By Caroline McKinney

	<u>New</u>	<u>Repeat</u>	<u>Return</u>
Green-tailed Towhee	<u>1</u>	<u>3</u>	<u>C</u>
Canyon Towhee	<u>3</u>	<u>3</u>	<u>C</u>
Total birds handled.	<u>4</u>	<u>3</u>	<u>C</u>

This month is the first time that we have seen the Green-tailed Towhees in the canyon. They seem to be quite numerous on the flats around Fajada Butte, but seldom venture close to the residences. We have several gold finches around the museum and house, but so far we have failed to trap them. I tried using bird seed, without success.

Chaco Canyon is pretty this month, with the purple and gold of the asters and sunflowers. The grass is heading out and countless birds may be seen feeding on the seeds. In the flats, the Chaco looks like a hay meadow.

*****SWM*****

PIPE SPRING N TUTE NOTES

By Leonard Heaton

I saw the first Gambel Sparrow on September 21, the first of the fall migration. It is time to get my traps out to catch the birds for banding. There are a few cats that need removing from the monument. They have been brought in by some of the CCC boys, from town or wherever they could pick one up.

We have a large increase in the population of grey squirrels, and the brown and striped chipmunks on the monument this fall. They are as busy as they can be gathering seeds from the cacti, gourds, and anything that they can store away for the winter.

*****SWM*****

CAPULIN COMMENTS

By Homer Farr

There is a very nice crop of pinyon nuts this fall on the monument, and this will make splendid forage for the deer, squirrels, and birds. In years past, I have noticed that deer exist largely on the pinyon nuts and get very fat on them.

SUPPLEMENTAL OBSERVATIONS CONT.

WILDLIFE AT WUPATKI

By David J. Jones

Have you ever noticed how quickly a mountain will put on fall colors? On September 21 as Cork. and I were going to town, we noticed one small patch of color. Within three days a good half of the San Francisco Peaks was covered with yellow, probably scrub oak and quaking aspen.

It is becoming quite a common thing for visitors and the CCC boys to report seeing antelope along the road into Wupatki. Cork. and I have seen quite a number of them ourselves. In three days in succession, we saw a band of six near Citadel Ruin. Last year at this time there were very few reported in this area. As a matter of fact, I saw my first monument antelope this spring although I was here for four months last fall.

Since the juniper berries are so plentiful this fall, I have had the CCC boys pick a few so that we can experiment with them in the bird traps. Now there is a possibility of banding a few Pigeon Jays which stay around Wupatki but which are so cautious about entering traps.

* * * SWM * * *

TONTO NATURAL NOTES

By Roland Richert

In the following brief compilation, I wish to acknowledge the assistance of Mr. Dwight Kelly of Los Angeles, California:

Some Data on Jojoba Nuts

Simmondsia chinensis, also listed as Simmondsia californica and Simmondsia pabulosa, but commonly called Coffee Berry, Buck Berry, Goat Nut, Sheep Nut, wild Hazel, Jojoba, Brochia, and Simmondsia, is common in southern Arizona and northern Mexico, and is very abundant at Tonto National Monument. The bean of the plant is 50 percent essential oils which chemists working with the Boyce Thompson Southwestern Arboretum have reduced to an oil identical to Arctic Sperm Whale oil. It is said that the oil from this nut was used by the Indians as hair oil. The leaves of the plant contain about seven percent protein. It is further cited that the early Spanish used the oil of the seeds as a substitute for olive oil and at one time an oil-extracting plant was started in New Mexico but failed due to the fact that the bushes failed to produce a crop of nuts every year. The Indians also used the roasted seeds to make a drink. There is a possibility that the bean may have commercial value today as it can supply the base for certain cosmetics and for a special type of paint.

Some Data on Mesquite Beans (Prosopis juliflora).

The pods contain from 25 to 30 percent grape sugar. The gum or dry sap of the tree contains pentose, a rabinose sugar which is very sweet. The gum also yields a yellow dye which is used by the Indians. A black

TONTO NATURAL NOTES (CONT.)

dy was also obtained from the gum. The gum is somewhat similar to Gum Arabic, and the mesquite tree is a relative of the acacia from which Gum Arabic is obtained. Mesquite beans formed a major part of the food used by many of the desert tribes such as the Pima and Papago. Analysis of the beans (pods and seeds) shows the following: Moisture, 5.96 percent; dry matter, 94.05 percent. This breaks down into crude ash, 5.20; crude cellulose, 32.53; crude fat, 5.12; albuminoids, 14.03; nitrogen free extract, 37.13 percent. The nutritive ratio is 1:5:8.

A leaking faucet at the parking area has been repaired. Hundreds of wild honey bees formerly drank from the wet moss growing beneath the drip and we didn't foresee the possibility that after their water supply was cut off they would descend en masse on our desert cooler situated on the back porch. Now the sequel to this is that visitors assume the cooler to be a hive and they inquire as to why I keep bees.

*****S.M*****

BIRD NOTES FROM CHIRICAHUA

By Gordon G. Philp

Moulting, the process of exchanging old feathers for new, was prevalent among the birds in August, and was of enough interest to warrant a brief discussion. Within the boundaries of Chiricahua National Monument, we have mainly passerine birds (an order of birds with numerous characteristics in common such as feet perfectly adapted for grasping, hind toe always present, young hatched weak and naked and, if necessity, fed in the nest by the parents, etc.) so we shall mention moulting in relation to this group only.

Generally, feathers are lost slowly and gradually. The replacement of old with new does not, as a rule, interfere with flight. For instance, wing feathers are shed simultaneously; one from the right wing, one from the left. Seldom is more flight equipment lost until the two first are either partially or wholly replaced. Birds' safety depends upon flight and nature protects this power. In almost all cases, moult does not begin until the duties of incubation are concluded, which is indeed fortunate. The effort required in nest building, incubating and protecting the eggs, and supplying the seemingly limitless appetites of the young, is more than enough to bring on shabbiness of plumage. During the rapidly cooling weather of fall and early winter, these old feathers are shed and thickly replaced with new that serve well during the cold months that follow. This dress, in most cases, is retained until the domestic duties of the following year are completed. Among some species, however, there is a double moult. One moult, which is only partial, changes the plumage to a vivid courting display. With some birds such as the male tanagers, there is a post-nuptial moult which robs the birds of their gay colors and, in return, they get a drab dress similar to that of the females. It is difficult to lay down any definite rules of moulting, for even closely related species may differ quite radically in

BIRD NOTES FROM CHIRICAHUA (CONT.)

this respect. However, it may be said that all birds moult at least once a year; a process which keeps them beautiful and well fitted to carry on their active and helpful lives.

SEPTEMBER BIRD OBSERVATIONS

The fall migration has commenced! A definite influx of migrants is under way. First came the Northern Pilcolated Warbler, then MacGillivray's Warbler, the Cassin Vireo, and the Least Vireo. Following came the perky Green-tailed Towhees and the drab Arizona Junco. The most unexpected arrival, a Western Belted Kingfisher, was first heard giving his unusual, unmistakable, rattling call and later seen hurriedly flying by. Inasmuch as this monument cannot boast of running streams the year around, we may be certain that this rare visitor was not subsisting upon fish if he remained in this area for any length of time. Although the diet of this species consists almost wholly of animal matter, it is known that they eat wild cherries, which are quite common here. Recently a male Anna Hummingbird was seen by me for the first time in this area. He displayed his exquisite gorget to perfection as he flew from flower to flower extracting the nectar. The only Rock Wren that I have recorded on this monument was seen recently at Massai Point at an elevation of 6,871 feet.

Still with us are the western Robins and the noisy Arizona Jays. Band-tailed Pigeons are seemingly more abundant. Of course their numbers are greatly increased by the addition of this season's young; and too, their gregarious habit of flocking at the termination of the nesting period makes them appear more numerous. Now, these flocks are more often encountered among the rocky formations where they may be seen plunging, gyrating around the oddly shaped, rocky crags with such speed that the eye has difficulty in following their sleek forms. They make a wonderful sight as they plunge down through deep canyons, appearing as if from nowhere and, with wings whistling, pass within a few feet of the observer. Hardly is there time for more than a fleeting glimpse before they are gone. To those fortunate enough to witness it, such a sight will be long remembered.

Following is a continuation of the list submitted last month (numbers continued) and represents the species encountered during the past 30 days:

- | | |
|----------------------------------|-------------------------------|
| 35. Warbler, Northern Pilcolated | 41. Hawk, Swainson |
| 36. Warbler, MacGillivray's | 42. Towhee, Green-tailed |
| 37. Flycatcher, Western | 43. Vireo, Least |
| 38. Road-runner | 44. Kingfisher, West'n Belted |
| 39. Poor-will, Nuttall | 45. Hawk, Sharp-shinned |
| 40. Whip-poor-will, Stephen's | 46. Wren, Rock |

*****SUM*****

SUPPLEMENTAL OBSERVATIONS (CONT.)

NOTES FROM NAVAJO

By Milton Wetherill

Birds Seen in September:

Red-shafted Flicker
Red-naped Sapsucker
White-breasted Woodpecker
Mountain Chickadee
Red-breasted Nuthatch
White-breasted Nuthatch
Wood Pewee
Spurred Towhee

Canyon Wren
Rock Wren
Woodhouse Jay
Long-crested Jay
Pinyon Jay
Gambel Sparrow
White-throated Swift
American Raven
Titmouse

Tracks of the red fox and grey fox were seen nearly every day and coyote tracks were seen occasionally. Tracks of mice (Peromyscus and Neotoma) were seen daily. Chipmunks and rock squirrels were encountered occasionally.

The following plants were collected by a Navajo Indian on September 23 for a sing to be held near Cow Springs: Douglas Fir, wild rose, wild geranium, broad-leaf yucca, Elm Root, Serviceberry, choke cherry, and willow. This Indian also had two long sticks of Water Birch which are used in the looms by the women. Plants collected on September 25 for a sing to be held in Tsegie Boko were; Douglas Fir, broad-leaf yucca, Skunkbush, brome, Scarlet Gilia, horsetail, and Pentstemon etoni.

*****SWM*****

HEADQUARTERS HAPPENINGS

On October 6, a large, blue homing pigeon with side and wing injuries was brought to the naturalist office by Ralph A. Yaba of Coolidge. The injured bird, which was found in a cotton field, bore a leg band AU-38-B3273. With the aid of the secretary of the Racing Pigeon Club of Tucson, the name of the bird's owner was learned and it is hoped that the pigeon, which has become quite a pet around the office, may be returned to its home in Phoenix.

Several species of winter resident and migratory birds have been seen around headquarters during the month. House Finches are returning to their winter shelters in the ramadas; the first Rock Wren was seen on September 21; and the first Gambel Sparrow of the season was observed on October 12. This date coincides closely with those on which this species put in an appearance in previous autumns; 1935, October 10; 1936, October 13; and 1937, October 8. A heavy crop of seed on the saltbushes of Cada Grande National Monument is attracting many birds of the sparrow group of both migratory and resident species.

*****SWM*****

RANDOM PAPERS

BEAVER HABITAT AT BANDELER

By W. B. McDougall

Regional Wildlife Technician, Santa Fe, New Mexico

(The original of the following paper, with illustrations, is available at the Southwestern Monumental Library, Coolidge, Arizona -- Ed.)

Because there has been some talk of introducing beaver into the upper part of Frijoles Canyon in Banderliar National Monument, I visited the monument on two occasions for the purpose of making observations on the suitability of the habitat for this animal. On June 3, Custodian Harkins kindly drove with me to the upper part of the canyon and took my car back to monument headquarters. I followed the trail down from the point where he left me, through the canyon, to headquarters; a distance of about six miles. On June 23, I walked from headquarters down the canyon to the monument boundary, a distance of two and one half miles, and to the Rio Grande River which is half a mile farther.

Beaver are present in the canyon below headquarters. This part of the canyon contains numerous narrow-leaved cottonwood trees which furnish a suitable food supply for the beaver. Numerous trees have been cut, especially near the monument boundary, and there are several dams.

I listed 78 species of plants while walking along the trails. Among these plants is the aspen. This species, however, is limited to a very few individuals near the western boundary of the monument, by no means enough of them to furnish a food supply for beaver. I saw no place in this canyon between the west boundary of the monument and the headquarters area where there is a suitable food supply for beaver. I do not believe

BEAVER HABITAT IN BANDELIER NATIONAL MONUMENT (CONT.)

beaver would stay in this part of the canyon if they were introduced because of this lack of a food supply. I was informed by Mr. Harkins that there are aspen groves farther up the canyon in the Santa Fe National Forest and this is where any beaver introduced into the monument would probably go. Since it would not be appropriate for the National Park Service to stock national forest lands with beaver, I do not believe it advisable to attempt to introduce beaver into Bandelier National Monument.

PLANTS NOTED IN TRIJOL'S CANYON

<u>Wormwood</u> (<u>Artemisia</u>)	<u>Thistle</u> (<u>Cirsium</u>)
<u>Wood Fern</u> (<u>Cystopteris</u>)	<u>Pussytoes</u> (<u>Antennaria</u>)
<u>Bracken Fern</u> (<u>Pteridium aquilinum</u>)	<u>Cherry</u> (<u>Prunus</u>)
<u>Scouring Rush</u> (<u>Equisetum</u>)	<u>Raspberry</u> (<u>Rubus</u>)
<u>Douglas Fir</u> (<u>Pseudotsuga mucronata</u>)	<u>Witch</u> (<u>Wicca</u>)
<u>Yellow Pine</u> (<u>Pinus ponderosa</u>)	<u>Hop Tree</u> (<u>Ptelea crenulata</u>)
<u>One-seed Juniper</u> (<u>Juniperus monosperma</u>)	<u>Smooth Sumac</u> (<u>Rhus glabra</u>)
<u>Dwarf Juniper</u> (<u>Juniperus communis</u>)	<u>Aromatic Sumac</u> (<u>Rhus trilobata</u>)
<u>Pinyon Pine</u> (<u>Pinus edulis</u>)	<u>Poison Ivy</u> (<u>Rhus rydbergii</u>)
<u>Sedge</u> (<u>Carex</u>)	<u>Box Elder</u> (<u>Acc. negundo</u>)
<u>Spanish Needle</u> (<u>Yucca</u>)	<u>Virginia Creeper</u>
<u>False Solomon's Seal</u> (<u>Smilicina</u>)	(<u>Parthenocissus vitacea</u>)
an orchid without green leaves, but not a Coral-root.	<u>White Violet</u> (<u>Viola</u>)
<u>Narrow-leaf Cottonwood</u>	<u>Blue Violet</u> (<u>Viola</u>)
(<u>Populus angustifolia</u>)	<u>Prickly Pear</u> (<u>Opuntia</u>)
<u>Aspen</u> (<u>Populus tremuloides</u>)	<u>Cholla</u> (<u>Opuntia arborescens</u>)
<u>Willow</u> (<u>Salix</u>)	<u>Petaya</u> (<u>Echinocereus</u>)
<u>Alder</u> (<u>Alnus tenuifolia</u>)	<u>Evening Primrose</u> (<u>Oenothera</u>)
<u>Gambel Oak</u> (<u>Quercus gambellii</u>)	<u>Water Hemlock</u> (<u>Cicuta occidentalis</u>)
<u>Nettle</u> (<u>Urtica</u>)	<u>Sweet Cicely</u> (<u>Washingtonia</u>)
<u>Dock</u> (<u>Rumex</u>)	<u>Black Snakeroot</u> (<u>Sanicula</u>)
<u>Sandwort</u> (<u>Arenaria</u>)	<u>Pine Drops</u> (<u>Pe. rospara</u>)
<u>Mouse Ear</u> (<u>Gerastium</u>)	<u>Shooting Star</u> (<u>Dodecatheon</u>)
<u>Chickweed</u>	<u>Dogbane</u> (<u>Apocynum</u>)
<u>Tall Meadow Rue</u> (<u>Thalictrum</u>)	<u>Butterfly Weed</u> (<u>Asclepias tuberosa</u>)
<u>Virgin's Bower</u> (<u>Clematis</u>)	<u>Waterleaf</u> (<u>Hydrophyllum</u>)
<u>Water Crowfoot</u> (<u>Ranunculus</u>)	<u>Bluebells</u> (<u>Mertensia</u>) two species
<u>Banberry</u> (<u>Actaea</u>)	<u>False Forget-me-not</u> (<u>Lappula</u>)
<u>Barberry</u> (<u>Berberis fendleri</u>)	(<u>Origanthe</u>)
<u>Golden Corydalis</u> (<u>Corydalis aurea</u>)	<u>Self-heal</u> (<u>Prunella vulgaris</u>)
<u>Shepherd's Purse</u> (<u>Capsella</u>)	<u>Jimson Weed</u> (<u>Datura</u>)
<u>Rockcress</u> (<u>Arabis</u>)	<u>Ground Cherry</u> (<u>Physalis</u>)
<u>Cross</u> (<u>Roripa</u>)	<u>Monkey Flower</u> (<u>Mimulus</u>)
<u>Wall Flower</u> (<u>Erysimum</u>)	<u>Scarlet Bayler</u> (<u>Pentstemon</u>)
<u>Saxifrage</u> (<u>Saxifraga</u>)	<u>Bedstraw</u> (<u>Galium</u>)
<u>Gooseberry</u> (<u>Libes</u>)	<u>Valerian</u> (<u>Valeriana</u>)
<u>Mock Orange</u> (<u>Philadelphus</u>)	<u>Ragwort</u> (<u>Senecio</u>) two species
<u>Strawberry</u> (<u>Fragaria</u>)	<u>Ficabane</u> (<u>Erigeron</u>)
<u>Wild Rose</u> (<u>Rosa</u>)	<u>Yarrow</u> (<u>Achilles millefolium</u>)

MOISTURE RETENTION OF CACTI

By David J. Jones, park ranger

On page 86 of the July, 1938, Supplement, The Boss makes some statements about the life tenacity of uprooted cacti which he appears to have had some difficulty in impressing upon his listeners and, perhaps, upon his readers. Although rarely in need of support for his statements, The Boss may find vindication in the following quotation from pages 376-7 of Weaver and Clements, "Plant Ecology", McGraw-Hill Co., 1929:

"The succulent form (of stem xerophytes) is represented by plants with fleshy stems such as Euphorbia, Stachelia, and the Cactaceae. They have decreased water loss by the extreme reduction or loss of leaves and by reducing the stem surface. In the cacti, for example, the leaves are wanting except during the early stages of growth and then they occur only as small scales at the nodes. The stems may remain round and smooth or become fluted by the presence of vertical green ribs, or become flattened in varying degrees, but they are always thick and fleshy. Fluted stems such as those of the giant cactus (Carnegiea gigantea) undergo accordion-like expansion during moist and dry periods respectively. The flattened types present a small amount of surface in proportion to the mass of contained tissue; and the surface is further reduced in the thick, cylindrical type, and reaches a minimum in the spherical form. In addition to the decrease in the transpiring surface, they further reduce water loss by means of water-storage tissue with high colloidal content (pentosans etc.). Growth is slow because of the small surface exposed to the light, although the chlorophyll extends much deeper than in most stems and leaves, but some attain the proportions of trees and may have a reserve supply of many tons of water stored in the pulpy interior. Because of their xeric characteristics, which usually include a highly developed cuticle and sunken stomata (pores), the plants lose water so slowly that they may continue to live for several years without an additional water supply. Thorns and spines are also more or less characteristic, although they serve only slightly and incidentally against water loss."

*** S.S.M. ***

GEOLOGY NOTES ON MONTEZUMA CASTLE REGION

By Edwin C. Alberts, park ranger.

To the most casual visitor, the glaring white exposures of the limey rocks surrounding Montezuma Castle are provocative of questions as to their nature, age, and characteristics. Indeed, to many obser-

GEOLOGY NOTES ON MONTEZUMA CASTLE REGION (CONT.)

vant travelers, the entire Verde Valley becomes an impression of chalky cliffs, irregular mesas, and an occasional strip of verdure paralleling such stream courses as occur. It is evident, then, that the geology of the region makes its imprint on visitors' minds and arouses some curiosity, more so perhaps than the more obvious biological development of the area. It thus becomes secondary in interest only to the section's major appeal -- its archeology.

By this reasoning, it would appear that the geological story should not be neglected in the educational services extended by our organization at Montezuma Castle; nor has it been. Fortunately the story is neither difficult to grasp nor to tell and, although certain problems exist and await the specialist's study, in general there are no troublesome flaws in an interesting story of the past. The writer feels that this story is of sufficient interest to pass along to those who may not have heard it.

It is evident that the Verde Valley is somewhat different from the usual "valley". Viewing it from a considerable height (as from Mingus Mountain near Jerome) it is seen to be of extensive length and of some width, bounded by high "breaks" and apparently floored with a white pavement through which numerous streams have cut canyons and built up low terraces. Examining a map, it is seen that its only drainage is by the Verde River, an interesting stream but of no remarkable volume nor cutting power, which flows out through a low wall in the south end of the basin.

Although there is some difference of opinion, geologists would be likely to call a basin of this sort a "graben"; a segment of the earth's crust that has been "cracked" all around and which has thereby sunk to a lower level than its surrounding surfaces. These "cracks" seem to be present and are referred to as faults, and are definitely present on the west side of the basin, one (the Verde Fault) having been of considerable significance to the mineral deposits of the Jerome area. It is probable that such "cracks" are to be found on the east and south edges of the valley as well. So the Verde Valley was not formed by normal stream erosion as much as by structural forces acting within the earth's crust. Although this fact is not essential to the story, it certainly is of sufficient interest to be included in any such discussion.

The "pavement" of this valley, when seen at close range, becomes the chalky limestone of which we have spoken. Although cut into by many washes and creeks, it is difficult not to observe the flat-lying nature of the formations and a general accordant level of mesa tops, all suggestive of deposition upon the surface of the valley, and of a certain depth of deposition which was never exceeded. To the geologist, then, such facts suggest that these beds were laid down, not by any existing streams (the limey character of the formations would preclude this interpretation), but by some previously existing large body of water. Inves-

tigations have further shown that these particular beds are found only in this Verde Valley. It is not hard to see, then, that a body of water must have at some time filled the valley, and that these limestones were deposited as limey sediments on the bottom of the old lake.

A person naturally asks, "Why should such a lake have formed?" Generally speaking, any lake must be formed through the formation of some sort of a dam -- beaver, concrete, or natural -- damming that prevents such waters as flow into it from reaching their ultimate destination, the sea. Since the present valley drains to the south through the Verde Canyon, we direct our attention there, for that would be the natural place for a "dam". Nor is it hard to find the evidence of such a dam. From the slopes of mountains surrounding Squaw Peak, and plainly visible from the parapet of Montezuma Castle, have occurred great flows of basalt; maldpais to many of us. Close examination of these flows serves to show that as the lavas poured forth from various vents and moved down the mountain slopes, certain amounts of this molten rock engulfed the old outlet of the basin effectively plugging up all drainage from the valley. This great, natural dam caused an impounding of all the waters which flowed through the ancient Verde Valley and an inland lake of considerable area and depth was created. On the bottom of this lake, limey sediments were slowly deposited.

The point might well be brought out in this regard that, since most lake beds are of silt (as the Dakota prairies -- the bed of former Lake Agassiz), and that most limestone beds have been deposited beneath salt water, is it so evident that the Verde Formation is not of marine origin? The answer to this lies in the type of fossils found in the limestone. Any marine limestone contains numberless remains of various sea organisms. No such remains are found in the Verde beds; on the contrary, such fossils as have been found are of freshwater types of life. Because of the fact that into the waters of this old lake was poured the drainage from the great limestone plateau to the north and east, the concentration of calcium salts in this water was extremely high, so high that, as evaporation ensued, great amounts of lime were precipitated out to build up the thick beds of limey mud on the lake bottom. This mud, dried and consolidated after the lake waters had drained away, now forms the so called Verde Formation.

How old is this lake, then, and what took place to bring about its disappearance? Since the present streams have cut into these beds only enough to form rather narrow canyons, it appears that the beds cannot be of great age, geologically speaking. The presence of a few fossils seems to bear out this evidence. Although occurring infrequently, these remains (clams and water snails) suggest that the lake was created and drained only a little earlier than the time of the Ice Age, and certain other evidence leads geologists to refer these formations to the Pliocene, perhaps two million years ago. Old, certainly, compared to our short span (both individually and historically), but extremely youthful as compared to, say, the Triassic of the Painted Desert, perhaps 180

GEOLOGY NOTES ON MONTEZUMA CASTLE REGION (CONT.)

million years old and which is itself underlaid by thousands of feet of formations much older.

The conclusion of this story is brief. Either the lake became filled to the brim and water flowed over and across the lava dam gradually cutting away the natural barrier, or certain additional movements along the basin's bounding fault zones permitted overflow. Whatever the cause, the lake spilled over its lava dam and was gradually drained as erosion enlarged this natural "spillway".

As we travel through the dry bed of this ancient lake, we see the streams working away the sediments of the ancient lake, and the valley once more becomes a flat, dry area. In view of the past history of the valley, however, the course of Beaver Creek, as it flows past Montezuma Castle, and of the other streams of the region, seem to become less as streams to our minds and more the threads of water left in a somewhat soiled bathtub after the drain plug has been removed and the water has all run out.

*****SWM*****

REFERENCES

Note: Little has been written on the geology of the Verde Lake Beds although the region surrounding the Verde Valley has been worked fairly thoroughly. However, the following two works give considerable more detail and technical discussion than the preceding short article - E.C.A.

Jenkins, Olaf P. "Verde River Lake Beds near Clarkdale, Arizona." Reprinted from the American Journal of Science, Vol.V., January 1923.

Darton, N.H. "A Resume of Arizona Geology", Arizona Bureau of Mines Tucson, Arizona.

*****SWM*****



GEOLOGICAL REPORT HOVENWEEP NATIONAL MONUMENT

By C. N. Gould
Regional Geologist, Santa Fe, N.M.

(The original of the following report, with illustrations, is available at the Southwestern Monuments Loan Library, Coolidge, Arizona -- Ed.)

Hovenweep National Monument is located on both sides of the Colorado-Utah state line, about 30 miles north of the "Four Corners". The monument, which is chiefly archeological in interest, consists of four isolated groups of unusual types of prehistoric ruins located near the heads of several small canyons. Two of these groups are located in Montezuma County, southeastern Utah, and two groups in San Juan County, southwestern Colorado. This monument, which contains 285 acres, was established in 1923. The name "Hovenweep" means "Deserted Valley".

The legal description of the land on which the various groups of ruins are located follows:

In San Juan County, Utah:

Ruin Canyon Group:

Township 39 South, Range 26 East Salt Lake Meridian, SW¹₄ and NE¹₄ of the NE¹₄, Section 20, and SW¹₄ of NW¹₄ of Section 21.

Cajon Group:

Township 40 South, Range 25 East Salt Lake Meridian, NW¹₄ of NW¹₄ of Section 21.

In Montezuma County, Colorado:

Township 36 North, Range 20 West N.M.P. Meridian.

Keely Group:

SW¹₄ of SE¹₄ and Lot 6, Section 7.

Hackberry Group:

In addition to the ruins of the four groups just named, there are a number of other ruins in the general area.

Supervisor Bryant, Wildlife Technician McDougall, and I were conducted to the monument on May 25, 1938, by Assistant Park Naturalist Watson of Mesa Verde National Park. No headquarters have been established at Hovenweep, and there is no custodian. During summer months the monument is attended part of the time by a "roving ranger" under the supervision of Southwestern Monuments headquarters at Coolidge, Arizona. Custodian T.C. Miller of Aztec Ruins National Monument, New Mexico, is normally in charge.

The geology of Hovenweep is simple. The general topographic effect

is that of a plateau or mesa gently sloping to the south. This mesa is cut by numerous canyons which flow south and empty into McElmo Creek. McElmo Creek rises near Cortez, Colorado, flows west, and joins the San Juan River about 15 miles from the state line and about the same distance northwest of the Four Corners.

Two geological formations occur on the mesa and in the canyons at Hovenweep and along McElmo Creek. The upper member is the Dakota Sandstone, of Cretaceous Age, and the lower is the Morrison, the highest formation of the Jurassic. Formerly, the term McElmo Formation was used to describe these rocks exposed along the creek and in this part of Colorado and Utah, but the name Morrison had priority and is now used by the Geological Survey.

The Dakota Formation is composed of one, or sometimes two, ledges of heavy massive sandstone, gray to buff, or brown in color. It is exposed in many places on the mesa, and also as steep cliffs forming the upper part of the canyon walls. The sandstone is traversed by a series of joints or crevices which permit large blocks to break off along the margin of the cliffs and roll or slide down the slope. All the buildings have been constructed of blocks of the Dakota.

Below the Dakota Sandstone and occurring in the lower parts of the canyons are exposures of the Morrison Formation composed chiefly of light-colored, gray, and moroon shales with thin beds of soft gray sandstone. Often the slopes have been covered with blocks of sandstone and other debris from the Dakota, so that the Morrison may be concealed.

Hovenweep is noted for the rather unusual type of towers; round, oval, and square, which are located sometimes on the rim of the canyon, sometimes on the slope below, and sometimes in the bottom of the canyon. They are of various sizes and shapes. Their origin and use has been a matter of conjecture.

The only report on Hovenweep that I have been able to find was prepared by the late J. Walter Fewkes. It is entitled, "The Hovenweep National Monument", and is published in the Smithsonian Report for 1923, pages 465-480 (with 10 plates). The following quotations from this report describe much better than I can the structures which we saw at Ruin Canyon.

"There are several towers on the Mesa Verde that are like those of the new monument (Hovenweep), showing that the prehistoric people of the Hovenweep resembled those of the Mesa Verde.

Three types of prehistoric towers are found in our Southwest: (1) Square, circular, or semicircular towers without surrounding rooms; (2), towers accompanied with basal subter-

ranean ceremonial rooms or kivas; (3), towers rising from pueblos or cliff dwellings. The first type of tower is usually mounted on top of a pinnacle or rock or on the rim of a canyon. The second type is situated on level ground or earth that allows excavation of basal kivas, and the third rises from pueblo or cliff house in which there are both kivas and living rooms. The relatively greater abundance of the second type, or a tower with a basal ceremonial room and no dwellings, would seem to indicate that the tower was connected with ceremonies, and if this be true it also seems likely that when associated with a number of rooms, as in a large ruin like Cliff Palace, it preserved the same character.

"Several theories have been suggested to explain the function of southwestern towers. They have been regarded as observatories, forts, bins for the storage of grain, especially corn, and as enclosures for the performance of religious rites. There are indications that they were built by an agricultural people, one of the primal necessities of whom is to determine the time for planting. This can be obtained by observations of the sun's rising and setting, and a tower affords the elevation necessary for that purpose; hence the theory that southwestern towers were in part used for sun houses or observatories. A building from which the aboriginal priests determined calendric events by solar observations became a room for sun worship or for the worship of the power of the sky.

"The presence of circular subterranean rooms, which almost always occur with towers, also indicates religious rites. As the tower may have been devoted to the worship of father sun or the sky god, in the underground kivas may have been celebrated the rites of mother earth. The rooms at the base of the tower in which kivas are embedded, in towers of the third type, indicate habitations and necessary granaries, as well as rooms for ceremonials. In support of the interpretation that some of these rooms are granaries, we find rows of vases in which corn is stored still standing in them. . .

"Hovenweep National Monument contains several towers in a much better state of preservation than any in Mesa Verde, a condition which indicates that they were constructed later. The ruined castles and towers of this monument are among the best preserved aboriginal buildings in the Southwest. The reservation includes four groups of ruins, now called Ruin Canyon, Keeley, Hackberry, and Cajon.

"There are 13 ruins in the Ruin Canyon group, over half of which are towers of the second type which have kivas at their bases. One of the larger ruins is in Square Tower Canyon and stands at the head of the canyon, rising from the very rim. Although sections of the wall of this building have fallen, the remains of a large semicircular house are conspicuous for some distance. This ruin also has buried kivas surrounded by square or rectangular rooms. In the midst of walls there formerly rose a multichambered tower, whose foundation is D-shaped, its straight wall measuring 23 feet and the curved wall 50 feet. The northeast corner rises 15 feet high, and the walls of the northeast angle of the ruin are still higher. This ruin, called Hovenweep House, resembles somewhat Far View House of the Mesa Verde National Park."

At the time of our inspection of the towers at Ruin Canyon, which forms a basis for this report, we were able to verify Fewkes in practically all points. One statement, however, is evidently in error. Fewkes says on page 462:

"These towers are situated in Utah, not far from the boundary between San Juan County and Montezuma County. There is no water near this cluster. One or two additional towers may be seen by following down the canyon, which eventually discharges its water into the Yellowjacket."

As pointed out to us by Park Naturalist Watson, and verified by other members of the party, there is a good spring under the cliff at the head of the canyon. This spring is flanked on all sides by towers. In describing the various ruins, I shall use the names proposed by Fewkes on page 460 of the report cited.

On the cliff to the east is Hovenweep Castle*, to the northwest is Hovenweep House, and in the canyon below is Square Tower*. Surrounded as it was by fortifications, this spring would be safe from attack by enemies.

To my mind the most logical explanation of the presence of the Hovenweep Towers was for the protection of the water supply. This explanation was also suggested to us by Park Ranger James W. Brewer who is familiar with conditions at Hovenweep. He finds that throughout the area the springs are always guarded by towers.

* Photographs accompany original report.

* **SWM** **

RUMINATIONS

Including a little horn tooting -
By The Boss

The closing of the visitor year on September 30 gives us a chance to do a little ruminating on our visitor activities and possibly a little horn tooting on the work we are doing. In the last eight or ten years, I have begun to notice that we have no official horn tooter for the Service as a whole, and if a fellow doesn't toot his own horn now and then it is likely to gather a lot of dust.

At the end of the visitor year, we cast up our figures and found that our unit, the Southwestern Monuments, had given 18,725 personally guided field trips and 11,044 museum talks during the previous 12 months. This was over ONE MILLION MINUTES of service and, as we thought we were doing pretty well, we asked the Washington Office what the Park Service, as a whole, had done along these lines.

We were told that the figures on the visitor year were not yet compiled, but that for the last fiscal year 36 parks and monuments, exclusive of historic areas and areas not offering interpretational services, the Service as a whole gave 35,630 conducted field trips and 22,080 lectures.

While our year doesn't overlap precisely with the above figures, there is an overlap of nine months and a pretty close comparison can be made. And it looks as if we are giving 52 percent of the whole number of conducted field trips, and 50 percent of all the talks that are being given by those 36 parks and monuments.

Will you agree that we are entitled to a good-sized toot?

While we are giving half of the guided trips and talks, we are by no means talking to half the entire number of people. There are several reasons for this, the main one being that many visitors have never heard of us and our 26 stations and wouldn't come off the paved highways to see us even if we should try, by advertising, to get them to do so,

There is, however, a saving grace about the fact that we do not handle such a large number of visitors. Whereas the average number in the parties served by all the parks and monuments mentioned above is 21 on the guided trips; with the stations of our unit, the Southwestern Monuments, the average party is 5.4, or about one fourth as many. Whereas the average number of listeners at a talk in the 36 parks and monuments is 78.8; with us it is 5.5 persons.

These figures mean that with us a guided field trip or a museum talk becomes a little personalized visit where the visitor has a chance to ask questions and we have time to go into all the details necessary to insure a satisfactory understanding of the points we are trying to bring out. Unless you have actually experienced it, the difference in visitor inter-

RUMINATIONS (CONT.)

est as shown in a party of 80 or a party of six is much more than you think. The fundamental difference between quality and quantity is well displayed.

We would like, also, to point out that this matter of handling small parties takes a different technique. A guide with a platform manner doesn't go over so well with a party of six, and we have been trying to bend our service to the particular needs of the small party.

We wish, by the way, that the Washington Office would gather just a few more figures on informational contacts which might cast light on those that it now reports. We see no objection to a park reporting as contacts the entering visitors who stop at the checking stations to ask about hotel facilities etc., if it will segregate them so that we can deduct them, for we do not consider them contacts in the larger sense. Likewise, some parks have a field trip that lasts eight hours or more, some may have trips of four hours, some have trips of less than two hours. Why not show that as No. 1, No. 2, etc. types of field trips and then we can tell from the tabular matter itself about what the personnel is doing. Some units put one person in a museum and then report all visitors who enter the museum as contacts although the attendant may only answer occasional questions, whereas other units may personally conduct visitors through the museum, giving a full explanation and all the discussion that the visitor wants. It seems to us that some fairly standard form of comparison could be worked out.

We are not much interested in having the total number of our visitors increase every year, unless this increase comes at the stations where we can handle it and it will do us no harm; but we are interested in seeing our contact percentages go up thereby proving that we are meeting our visitors, answering their questions, and giving them the information that they want. There, again, is a great difference between our work and the work in the scenic areas; our visitors are anxious to join a guide and get information, for they have learned that they can't absorb much knowledge or inspiration by cruising around an historic or prehistoric ruin alone, there is so much that the eyes can't see.

And so we feel pretty good as we hang up that record of just under 30,000 guided field and museum trips for last year and start out at once to raise it a few thousand in the current visitor year!

And we think we are entitled to a toast, too.



The Boos

SOUTHWESTERN MONUMENTS

MONTHLY REPORT



NOVEMBER - - - 1938

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

SOUTHWESTERN MONUMENTS

NOVEMBER, 1938, REPORT

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S O U T H W E S T E R N M O N U M E N T S P E R S O N N E L

HEADQUARTERS: National Park Service, Coolidge, Arizona.

Frank Pinkloy, Superintendent; Hugh M. Miller, ass't. superintendent; Parke W. Soule, chief clerk; Dale S. King, ass't. park naturalist; Charlie R. Steen, jr. Park archeologist; Matt N. Dodge, jr. park naturalist; Luis A. Gastelum, clerk; Robert Petrie, clerk stenographer; Ira G. Goodwin and Larry Mungerro, CCC clerks; F. E. Stonehocker, machinist; J. L. L. Bachr; utility man; Max Jaso, machinist helper, CCC; Victor Scholz, mimeograph operator, CCC. DETAILED FROM REGION III: J. H. Tovrea, ass't. engineer; and Charles D. Carter, jr. landscape architect.

FIELD STATIONS - POST OFFICE - PERSONNEL - 1938 VISITORS - ACRES AREA				
1. ARCHES: Moab, Utah	Harry Reed in charge	1,448		4,520.00
2. AZTEC RUINS: Aztec, N.M.	T.C. Miller, cust.	20,214		25.88
3. BANDELIER: Santa Fe, N. M.	C. G. Harkins, custodian; Geo. Sholly, grader operator; 3 guides and helpers, CCC.	14,619		26,026.20
4. CANYON DE CHELLY: Chin Lee, Ariz.	custodian, Johnwill Farris	1,573		83,840.00
5. CAPULIN MOUNTAIN: Capulin, N.M.H. Farr, cust.	30,200			690.37
6. CASA GRANDE: Coolidge, Ariz.	A. T. Bicknell, custodian; Don Egermeyer, ranger; J. Rodgers, S. Coyle, and G. Sheffield, guides, CCC	33,761		472.50
7. CHACO CANYON: Chaco Canyon, N.H.	Lewis T. McKinney, custodian	6,271		21,512.37
8. CHIRICAHUA: Douglas, Ariz.	Frank Fish, cust., H. Bennett, Wm. Stone, H. Minton, guides CCC	9,145		10,694.80
9. EL MORRO: Ramah, N.M.	R.R. Budlong, cust.	3,208		240.00
10. GILA CLIFF DWELLINGS: Cliff, N.M. no custodian	105			160.00
11. GRAN QUIVIRA: Gran Quivira, N.M. G. Boundey, cust.	3,113			610.94
12. HOVENWEEP: Cortez, Colo., T.C. Miller, Aztec N.M.	168			285.80
13. MONTEZUMA CASTLE: Camp Verde, Ariz. E. Jackson, custodian; Edwin Alberts, park ranger.	10,645			520.00
14. NATURAL BRIDGES: Blanding, Utah; Z. Johnson, cust.	741			2,740.00
15. NAVAJO: Tonalea, Ariz.	John Wetherill, cust J.W. Brower, Jr., park ranger.	411		360.00
16. ORGAN PIPE CACTUS: Ajo, Ariz. no custodian	6,200			330,670.00
17. PIPE SPRING: Moccasin, Ariz.	L. Heaton, cust.	2,245		40.00
18. RAINBOW BRIDGE: Tonalea, Ariz. no custodian.	222			160.00
19. SAGUARO: Tucson, Ariz.	Carleton Wilder, ranger	20,422		63,284.00
20. SUNSET CRATER: Flagstaff, Ariz. D. Jones, ranger	6,922			3,040.00
21. TONTO: Roosevelt, Ariz., no custodian.	4,985			1,120.00
22. TUMACACORI: Bx 797 Nogales, Ariz. L. Caywood custodian; Ted Cronyn, park ranger	15,289			10.00
23. WALNUT CANYON: Flagstaff, Ariz. P. Beaubien, jr. archeologist; C. Leffler, T. Maloney, S. Cataldo and R. Boishline, CCC guides	13,526			1,873.00
24. WHITE SANDS: Alamogordo, N.M. Tom Charles, cust.	Joe Shepperd, grader operator.	110,805		142,987.00
25. WUPATKI: Flagstaff, Ariz.	D. Jones, park ranger	2,754		35,865.00
26. YUCCA HOUSE: Cortez, Colo.	T.C. Miller in charge	172		9.60
<u>TOTAL FOR 1938:</u>	<u>1,143.35 square mi.</u>	<u>319,164</u>		<u>731,747.46</u>

OPENING

By Superintendent Frank Pinkley,
Southwestern Monuments,
Coolidge, Arizona.

The Southwestern Monuments handled 1,172 field trips and 828 museum trips in November. There were 5,721 visitors on the field trips, 4,748 on the museum trips; all told 10,439 educational contacts.

Our total number of visitors was 17,320, so there were thousands of visitors, literally speaking, who could not get the information they wanted. Four more men at White Sands would have been of material aid in clearing up this situation.

While our informational report shows up pretty well as compared with last year, displaying a gain of 1,400 contacts and an increase in both number of field trips and number of museum trips, we have an actual shortage in total number of visitors. In other words, with a less number of visitors we did more business. Gains are noted at the following stations: Aztec, Capulin, Casa Grande, Chaco, Pipe, Tusacacori, and Wupatki. The other stations either held even or showed losses.

Johnwill Faris was transferred to White Sands during the month and we are looking forward to the completion of the new State Highway which will throw the traffic past our new administration building. Then we will find out the exact size of our problem at that station.

A temporary ranger, Carleton Wilder, was in charge at Saguaro during the month running a game patrol and trying to get settled down for the winter season so he can take care of visitors.

Some interesting experiments were conducted during the month looking toward making perfect molds of the inscriptions at El Morro; see the report from that monument by Mr. Budlong.

Our CCC camps at Bandelier, Chiricahua, and Flagstaff, together with the two detached camps at Casa Grande and Chaco Canyon, functioned well during the month.

Plans are coming through on our six residences and one administration building under Public Works, and we are beginning to enter the second phase of the problem; getting out bids. Thus far the work is well along and we wish to render our thanks and compliments to the Branch of Plans and Design and Branch of Engineering for the way they turned out our plans under such pressure.

Our finances are in good condition at the end of the month, in fact we are just a little ahead of our estimates for this period of the fiscal year.

Looking forward a little, our trestle board is full of plans.

A little later in the year, when the roads-and-trails funds are undergoing some reorganization, we want to bring again to your attention the need of a major road into Arches National Monument. This will be no small sized project and is distinctly out of the field of a CCC camp. We want to run a survey in from the highway and find out the real size of our problem; then we will be able to attack it intelligently. On this road survey will depend the location of our water supply, administration

OPENING (CONT.)

area, residential area, etc., and it is high time we were getting started on the development of this monument. As soon as the extension is made to the monument and the road is assured, we can ask for a CCC camp and get started on the administration, residence and utility work.

We have been working on a proposed enlargement of Hovenweep during the month and have found a headache or two connected with it. We think we see our way through but are not yet ready to report or ask for technical examination.

Chaco problems stand near the head of our list and we want you to keep in mind the possibility of a CCC camp there next summer or fall if we can mature our plans by that time. We are attacking Chaco from a new angle which will require considerable technical help and some months of time.

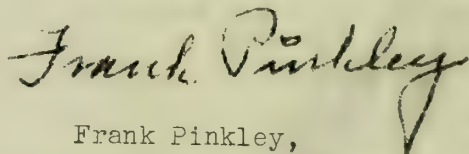
During the month just passed, we appeared before the Chamber of Commerce of Gibson, Arizona, which is a suburb of Ajo, and, at their request, went into the details of what we are doing among the Southwestern Monuments and what we want to do at Organ Pipe Cactus National Monument. We had a very satisfactory meeting and were assured that a definitely good impression was made on all who were present.

Our Mr. Dodge had two interesting days with the pupils of the Mesa, Arizona schools, talking to about 1,200 of them with colored movies about our work. We gathered some useful experience and received an enthusiastic letter from Mr. Skaggs, of the visual education division of the schools, indorsing both the films and the talk. We have some interesting experiments planned with both movie and still colored pictures, about which we promise more details as they begin to work out.

Another experiment which seems to be working out is our Monday night meetings where we adjust all the little differences and go over present and future plans. It is supposed to run from seven to eight o'clock and it generally closes from ten to eleven. Attendance for the first hour is required, after which nobody seems to want to leave.

On the whole, November was good and the outlook is fine for December.

Cordially,



Frank Pinkley,
Superintendent.

CONDENSED REPORT

IN WHICH HIGHLIGHTS OF THE MONTH ARE GIVEN



Coolidge, Arizona,
December 1, 1938.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

The Condensed Report for the month of November, 1938, follows:

	November 1938	November 1937	November 1936	Visitor Yr. to Nov. 1	Visitor Yr. to Date.
TRAVEL:					
Station					
Archos	100*	106	---	55	155
Aztec	962	771	654	1,349	2,311
Bandelier	275	982	518	613	888
Canyon de Chelly	48	45	45	131	179
Capulin Mountain	1,000*	600	600	3,100	4,100
Casa Grande	2,818	2,664	2,900	2,471	5,289
Chaco Canyon	430	134	565	403	833
Chiricahua	412	717	330	484	896
El Morro	115	190	78	274	389
Gila Cliff Dwelling . . .	0*	10	---	10	10
Gran Quivira	70	213	290	259	329
Hovenweep	0*	---	---	10	10
Montezuma Castle	584	705	353	601	1,185
Natural Bridges	23	38	---	91	114
Navajo	21	2	---	50	71
Organ Pipe	500*	500	---	900	1,400
Pipe Spring	237	200	180	268	505
Rainbow Bridge	0*	10	---	20	20
Saguaro	1,500*	1,600	742	1,300	2,800
Sunset Crater	164	183	205	447	611
Tonto	218*	250	233	274	492
Tumacacori	1,315	903	1,194	916	2,291
Walnut Canyon	528	544	353	964	1,492
White Sands	5,760	6,328	4,907	6,720	12,480
Wupatki	160	90	107	230	390
Yucca House	20*	---	---	30	50
TOTALS	17,320	17,805	14,283	21,970	39,290

* Estimated

CONDENSED REPORT (CONT)

Not only was travel considerably lighter than during October, but a slight decrease from that of November, 1937, was noted. The drop tallies with that reported by Arizona port-of-entry officials. Shift of travel from the northern to the southern areas was well under way during November but will not reach its climax until February or March when the peak of the winter tourist visitation is attained.

000 GENERAL

010 Matters of Unusual Interest or Importance

Arizona areas: The annual state resources edition of the Phoenix Republic and Gazette, known this year as the Marcos de Niza anniversary number, carried photographs and publicity on all National Park Service areas in Arizona and several in New Mexico (see p. 408).

El Morro: Experiments leading toward the copying and preserving of all inscriptions proved very satisfactory. The custodian has installed a personal short-wave radio set to maintain communication with "the outside" if he is showed in this winter (see p. 394).

Natural Bridges: Trail work was completed and the monument closed for the winter months (see p. 394).

Navajo: The Indian Service has offered cooperation in protecting the ruins in their territory (see p. 380).

Organ Pipe: Stands of the Old-man Cactus (Lophocereus schottii) have been located on the monument (see p. 434).

020 Weather

Clear, cold, and windy weather has been general in the majority of the northern areas with light snowfalls in the majority. In the southern portion of the territory the weather has, in general, been clear and dry with the temperatures somewhat lower than average. Predictions of a long, cold winter are made in several of the field reports.

100 ADMINISTRATIVE

123 National Park Service Visitors

Aztec Ruins: L. T. McKinney, G. Vivian, J. Faris, T. Cronyn, A. E. Underhill, J. Diehl, and H. Miller.

Bandelier: C. Richey, A. Underhill, R. Higgins, H. Miller, and E. Reed.

Casa Grande: Al. Kuehl.

Chiricahua: W. Yeager, A. Kuehl, J. Miller, and J. Tovrea.

El Morro: C. N. Gould, E. McCollm, E. Reed, J. E. Kell, and A. Soper.

Saguaro: A. Kuehl, J. C. Miller, and J. Tovrea.

Tumacacori: Superintendent Pinkloy, D. King, J. Tovrea, A. Kuehl, and J. C. Miller.

Navajo: J. B. Hamilton, Bradley, and Stahl.

Walnut: J. Brewer, D. Jones, A. Kuehl, G. Vivian, D. King, C. Steen, J. Tovrea, H. Miller, L. Gastellum, J. Haile, W. Yeager, C. Carter.

Headquarters: W. Yeager, Bill Stevenson, Boone.

Wupatki: D. King, C. Steen, G. Vivian, P. Beaubien, C. Parker,

CONDENSED REPORT (CONT.)

and Superintendent White of Sequoia.

140 Labor Situation

Gran Quivira: The bean crop in the area failed (see p. 382).

Chiricahua: Increased activity in copper mines and smelters has created a feeling of optimism (see p. 386).

150 New Equipment and Destruction of Old

Casa Grande: Floor lamp provided for bachelor quarters (see p. 377).

170 Plans, Maps, and Surveys

Walnut: A route has been located for the proposed water line (p. 399).

Wupatki: Survey for the new entrance road was started (see p. 400).

180 Circulars, Placards, and Publicity

Chiricahua: Educational shorts shown at nearby towns have given the monument some good publicity (see p. 387).

Headquarters: All Arizona monuments received publicity through the Marcos de Niza number of the Arizona Republic and Gazette (p. 403).

Wupatki: An article by Polly Tovrea recently appeared in the Tucson Star featuring Ranger and Mrs. Jones (see p. 409). Undesirable publicity regarding the monument has been widespread, the facts printed being more or less erroneous (see p. 372).

200 MAINTENANCE AND NEW CONSTRUCTION

220 Improvements

Bandelier: The old ranger station and concessionnaire's utility area has been razed and will be planted to native growth (see p. 391).

El Morro: An addition to the ranger quarters was completed (p. 404).

Pipe Spring: Forty four small trees were planted (see p. 381).

Tonto: Considerable work has been done improving the road, and a new roof was built over the equipment shed (see p. 381).

221 CCC Construction

Bandelier: Cabin units are ready for painting; plumbing, doors, and windows were installed in the comfort station; considerable furniture has been made; rock quarrying has continued; the old ranger station and concessionnaire's utility area were razed; the fuel oil storage and distribution project and the hot water system project for the Utility Operator Development were started; walls, walks, and soil preparation projects were continued through the month (see p. 393).

Casa Grande: Door guides and electric wiring were installed in the shop; warehouse doors were hung, windows were placed, and a scratch plaster coat applied; the oil house was brought to practical completion; a transformer protection wall was finished and parkway electric cable laid; the educational building was finished; and the adobe making project was continued (see p. 377).

Chiricahua: One half mile of road was re-surfaced; 600 square yards of dirt and rock banks were sloped; work continued on the administration building and furniture construction projects

CONDENSED REPORT (CONT.)

(see p. 387).

Saguaro: Much needed road work was carried on (see p. 371).

Walnut Canyon: Concrete pouring was started on the ranger cabin foundations; progress was made on the trails and sewer lines projects; entrance and utility roads routes were cleared (see p. 399).

300 ACTIVITIES OF OTHER AGENCIES

320 Cooperating Agencies

White Sands: State Highway plce have been helpful (see p. 375).

Navajo: The Indian Service has offered to help in protecting ruins difficult for the ranger to reach. The CCC has been of great aid in maintaining the entrance and approach roads (see p. 380).

350 Donations and Accessions

Headquarters: The library received a number of original manuscripts in addition to 186 publications (see p. 408).

Tumacacori: Five Spanish law books, two spurs, two lance-heads, one stirrup, one spike, one flintlock mechanism, and one copper pitcher were added to the museum displays (see p. 399).

Walnut Canyon: Two hand stones, four arrowpoints, a number of beads, sherds, etc. were found (see p. 400).

400 FLORA, FAUNA, AND NATURAL PHENOMENA

410 Ranger, Naturalist, and Guide Service

All Areas: Based upon travel to all monuments, guide service was about 60 percent effective due to shortage of personnel, many monuments having no men whatever. Guide conditions are worst at White Sands where travel was very heavy (see p. 363 and travel chart on page 311).

Headquarters: In five educational programs held in nearby towns 1,550 people were contacted (see p. 409)

Wupatki: Copy for informational roadside signs has been prepared and submitted to headquarters. CCC guides have been established for the winter and will protect the ruins (see p. 372-3).

420 Museum Service

Bandelier: Museum service was maintained, and 12 labels and two maps were received from the Laboratories (see p. 392).

Saguaro: Plans made for re-establishing "cactus trail" (see p. 371).

Tumacacori: A talk was given by Dr. Ewing on Nov. 4 and colored movies were shown by John Fast; total attendance, 238 (p. 398).

440 Insect Control

Bandelier: Seventeen "bug trees" were cut and sawed up for fuel.

460 Birds

Chaco Canyon: Thirteen birds were handled in November (see p. 433).

Headquarters: Analysis of the headquarters bird-banding project

CONDENSED REPORT (CONT.)

and problems connected with it is given on page 435.

Montezuma Castle: Betty Jackson's report is on page 432.

Pipe Spring: Goldfinches and Gambel Sparrows numerous (see p. 430).

470 Other Animals

Capulin: Deer have learned to seek protection on the monument during hunting season. None killed this year (see p. 402).

Chaco Canyon: A porcupine was seen at headquarters (see p. 402).

Gran Quivira: An invasion of goats has been a nuisance (see p. 383).

Montezuma Castle: Cold weather stopped cicada activity (see p. 432).

Pipe Spring: Identification of a Spotted Night Snake constitutes a new record for this monument (see p. 430).

White Sands: Interesting comparisons between mice and lizards of the sands with those of neighboring areas are given on page 431.

480 Miscellaneous Natural Features

Tumacacori: Trees get their seasons mixed (see p. 433).

500 USE OF MONUMENT FACILITIES BY THE PUBLIC

510 Increase or Decrease of Travel

A slight decrease from the November travel of 1937 was noted, and a considerable drop from October totals was experienced. Records coincide rather closely with those of Arizona ports of entry.

Chiricahua: This is the first month that out-of-state visitors have exceeded locals in number (see p. 387).

Saguaro: An effort was started to organize travel county to gain an accurate check on visitors and their activity in the monument.

530 Newsworthy Visitors

Aztec Ruins: W. W. Beatty and C. Amsden.

Canyon de Chelly: Dr. D. Tresidder and T. R. Dennis

Casa Grande: R. A. Bolinger and S. S. Tyler.

Montezuma Castle: G. W. Gordon, J. F. Porter, and S. T. Browne.

White Sands: Senator Hattie Caraway.

540 Public Camps

Casa Grande: Use increasing with the cool season (see p. 376).

600 PROTECTION

620 Fire:

Wupatki: Camper's tent burned but no damage suffered by monument

Walnut Canyon: Fire suppression crew organized (see p. 401).

640 Destruction of Predators

Casa Grande: Four cats and two dogs were removed from the monument during the month (see p. 430).

Chaco Canyon: The custodian calls for assistance in solving the problem of Indian dogs on his monument (see p. 396).

650 Signs

Canyon de Chelly: A survey was made to determine number and location of needed signs. The ranger discusses the importance

CONDENSED REPORT (CONT.)

of brevity in sign wording (see p. 389).

Montezuma Castle: Thirteen "No Hunting" signs were installed on the monument boundaries (see p. 390).

Tonto: Damaged signs were touched up (see p. 381).

Wupatki: Copy for a number of informational signs was prepared and submitted for approval (see p. 373).

700 ARCHEOLOGY, HISTORY, AND PREHISTORY

710 Ruins Stabilization

Aztec Ruins: Rooms 1-7 and 10-13 inclusive were waterproofed and the walls capped, except 10-11. Work was commenced on the Roofed Kiva (see p. 384).

Casa Grande: Antiquities funds were exhausted and work stopped on the antiquities project (see p. 377).

Chaco Canyon: Drainage at Bonito and wall support and patching at del Arroyo were the major jobs carried on (see p. 397).

Wupatki: One hundred twenty man days were spent on ruins stabilization. Work was done on rooms 49-50-51. Considerable experimentation was necessary (see p. 374).

900 MISCELLANEOUS

Bandelier: Storms placed the approach road in very bad shape (p. 391).

Chiricahua: Improvement of approach roads continued, with surfacing on State #81 to Douglas (see p. 386). The CCC camp aided in a search for a lost five-year-old boy (see p. 387).

Gran Quivira: Approach roads are being improved (see p. 383).

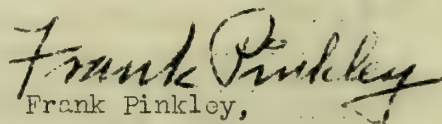
Hovenweep: Cooperation of sheep men solicited in protecting the ruins from stock (see p. 385).

Montezuma Castle: Approach roads are in a very bad state of repair and travel is adversely affected (see p. 389).

Navajo: A fence is needed at Keet Seel to protect the ruins from cattle (see p. 379).

White Sands: The new paved highway between Las Cruces and Alamogordo, which follows the monument boundary, will be completed during the coming month (see p. 375).

Cordially,


Frank Pinkley,
Superintendent.

FIELD REPORTS

FROM THE MEN ON THE JOB

SAGUARO

By Carleton S. Wilder, ranger,
Box 2708, Tucson, Arizona.

Visitors this month, 1,500; since October 1, 2,800.

TRAVEL

Estimated total visitors.	1,500
No. registered.	200
Parties contacted	12
Total persons contacted	48

Travel through the monument is undoubtedly on the increase at this time of the year, although I have no way of checking on the visitors at present. In order to get an idea as to the approximate number of visitors on a Sunday, the afternoon of November 20 was spent at the Speedway entrance. I will repeat this performance several times in hopes of getting a fair average of visitors and an idea of how many local people use the monument. A total of 135 came in between one and five P.M. I asked all to register. During the rest of the month, only 65 visitors made use of the register at that gate. Because of this low percentage of registrations, I am going to try the register at the ranger cabin, near the exhibits. Later on I will have some CCC help in checking travel, and hope to get a better idea of travel through the monument.

GENERAL

With the close of hunting season, more time can be devoted to making contacts and working on displays. I believe the best location to be at the ranger cabin for contacting the public. For this reason I am attempting to restore the cactus garden of former years, and to outline a desert "nature" trail. I hope during the next few weeks to have an adequate display ready for the public. Signs along the road telling the mileage to the cabin, as well as what is to be found there, will bring in a few more visitors, I hope.

IMPROVEMENTS

The CCC camp from Randolph Park is now at work on the south part of the monument. The project calls for completion of the skyline loop road and construction of a contact station this winter. The crew has also worked on the road leading from Speedway entrance to the south part of the monument, work which was much needed.

SAGUARO (CONT.)

The county road connecting Broadway with the monument is very near to completion. When completed it will create another problem concerning the handling of visitors as there will be two south entrances making for quite a bit of confusion. One entrance can be closed off temporarily without much difficulty, and this may help solve the problem.

VISITORS

On November 18, A. C. Kuehl and Jerome C. Miller from the Regional Office were here looking over the work being done on the south part of the monument. They were accompanied by J. H. Tovrea from Coolidge, and Messrs. James and Maguire of the Randolph Park CCC Camp.

*****SW*****

WUPATKI

By David J. Jones, park ranger
Tuba Star Route,
Flagstaff, Arizona

Visitors this month, 160; since October 1, 390.

TRAVEL

Visitor travel for November increased more than 30 percent over the highest figure of any previous year with a total of 160 persons registering at both the Citadel and Wupatki. Approximately three fourths of these visited both ruins. Noticeable, however, is the decrease in travel over the previous months. Several times three or four days passed without anyone coming in.

GENERAL

Of late there has been a good deal of publicity in the newspapers concerning Wupatki. It is getting so that the visitors already know the name of the custodian, and expect to see the quarters. We do not mind this so much, but when the visitors say, "We are on our honeymoon, too", we feel that an injustice has been committed. After seven months the honeymoon should be over. The major grudge which we nurse against the press, however, is that they call Wupatki the oldest inhabited house in the world. While I have never gone into the matter from this point of view, I am sure that there are many inhabited houses in the world much older than ours. We would be satisfied if they called it the oldest inhabited house in the United States, and let it go at that.

During the month, four CCC guides were trained to protect the ruin and guide visitors, during the absence of the ranger for the four winter months. They include the following: R. Beishline, C. Thurston, B. Moesilio, Chester Lefler. When the ranger left on November 22, the former two were firmly

WUPATKI (CONT.)

entrenched in the cook shack, enjoying the prospect of the winter immensely.

Pictures of the proposed headquarters area requested by Associated Landscape Architect Kuhl were taken and sent to him on November 7.

A requisition for signs was prepared for the Coolidge office, and all groundwork completed for a report on the proposed plan for educational signs along the roads on this monument, and between here and Sunset Crater.

A visitor to the Citadel met misfortune. Apparently he decided to camp in the box canyon just below the Citadel, pitched his tent, and started a fire. Either he left his camp to look around or, during the night, a wind came up and blew sparks which caught his tent. He lost practically all of his possessions. He did have a good sense of humor, however, as he erected a cross and headstone upon which was written, "Here lies a d---d good camp." I can imagine how he felt at that time.

It amused me recently to note the gleam in the eye of Hal, one of our Navajo medicine men, when I gave him some deer hoofs, and a piece of suet from just above the tail of the deer. The hoofs are used for rattles, and the suet for a medicine in some of the curing ceremonies. He prized the latter especially, as it is somewhat difficult for a Navajo to obtain, since there are so few deer on the reservation. Now he wants some suet from above the tail of a buffalo. If any of you know where I can procure some of this, I would appreciate your letting me know.

MAINTENANCE AND IMPROVEMENTS

Four days were spent in repairing the quarters at Wupatki, plastering and whitewashing the walls.

A filing system (regulation NPS) was installed with the aid of CCC Clerk Frank Morales of NM5A. While it needs a bit of polishing here and there, I can at least find material when I want it; thanks to Frank.

USE OF MONUMENT FACILITIES BY THE PUBLIC

Of the 160 visitors to the monument, 97 registered at the Citadel, and 73 at Wupatki. Deductions were made for those who registered at both places. A total of 47 persons were contacted on 20 field trips for an average time of 62 minutes.

NEWSWORTHY VISITORS

Dale S. King and C. R. Steen, from Headquarters, Gordon Vivian of the Mobile Unit, and Paul Beaubien of Walnut were at Wupatki from the 3rd through the 5th in connection with the ruins stabilization project. Colonel and Mrs. J. R. White, formerly of Sequoia National Park, visited the Citadel on their way back to Washington. We are sorry that they did not come into Wupatki, as we would have enjoyed meeting them. Project Superintendent Parker of NM5A visited the monument several times inspecting the ruins stabilization project.

WUPATKI (CONT.)

NATURE NOTES

Bones, identified by L. L. Hargrave of the Museum of Northern Arizona as those of a young eagle, were found beneath one of the eagle's nests at the Citadel Sink. The bird had attained full size and probably was ready to leave the nest. Cause of its death is, of course, unknown, but we suspect it was shot.

RUINS STABILIZATION

A total of 120 man days was spent on ruins stabilization at Wupatki. King, Steen, Vivian, and Beaubien were at Wupatki from the 3rd through the 5th. Vivian instructed the others in the technique of stabilization. Most of the work was experimental in that certain minor techniques must be worked out for the Wupatki ruin, and it was necessary to train a CCC crew for the work. For example, at Wupatki a good deal of mortar is used in some of the walls, especially the inside walls of rooms. In order not to have a great deal of difference between the stabilization and the original, it is necessary to use a good deal of mortar which contains bitchmuls; which in turn discolors the red clay. Inconspicuous walls were left with the unstained bitchadobe, whereas others were coated with a fine wash of red clay, while the mortar was still wet in hopes that there would not be this great difference in the color of the mortar. By next spring it will be possible to determine how much the unstained mortar bleached, and whether or not the red clay wash is effective. R49--15 yards (flat) two course capping and the outside of the south wall plastered with bitudobe and recovered. R50--9 flat yards of two course capping, and outside of south wall plastered and recovered with earth. R51--13 yards (flat) two course capping, and four cubic feet of the west half of south wall restored in that it was badly washed in previous years. The outside of this wall was plastered. In cleaning around these walls, it was noted that the west wall of room 51 extends beyond the corner formed by the south wall, an indication that there might have been a contiguous room. If such a room exists it has not been recorded on the maps.

All of the capping mentioned above was to replace a cement capping put on the walls during CWA 1933-34. Pictures were taken after the completion of the work, and forwarded to Headquarters for development.

SUNSET CRATER

A total of 164 visitors registered at Sunset Crater during the past month as compared with 183 for 1937, and 205 for 1936. Total since October 1; 611.

*****SWM*****

WHITE SANDS

By Tom Charles, custodian,
Alamogordo, New Mexico.

Visitors this month 5,760; since October 1, 12,480.

It looks as if White Sands headquarters will be on a main federal highway before we make you another report. The entire 23 mile grade on the new road to Las Cruces has been completed and the contractor is today finishing the first course of gravel from the south boundary of the monument past the buildings to the end of the paving at the north boundary. It is our understanding that as soon as the three inch course of fine gravel is put down on this stretch of road, which will be in the next few days, the travel will be permitted to use the new road through the monument.

Our new ranger, Johnwill Faris, will probably appreciate this change. It will enable him to meet his guests at the front door instead of chasing out into the sands after them. But I suspect that on Sundays and holidays he will wish that he were twins.

Mr. and Mrs. Faris arrived Wednesday night and Johnwill went to work Friday.

On our usual registration percentage basis, we have had 5,760 visitors this month. The first page of the registration book contains 40 names and in the list we find one registered from England and others from California, Ohio, New Mexico, Arkansas, Iowa, Illinois, Montana, New Jersey, Texas, Tennessee, Alabama and Kansas--12 states and one foreign country represented in 40 names. The one from England was G. S. Tyler, member of the Royal Air Force, London.

Our most distinguished visitor this month was Mrs. Hattie Caraway, United States Senator from Jonesboro, Arkansas, with her traveling companion, Miss Emma O'Reiley of Little Rock. Colonel Tom Boles kindly called us and advised us of her intended visit which gave us opportunity to have the State Police meet her and give her a 'specially conducted tour through this county. This was particularly desirable because there was an 18 mile stretch of highway on the new construction which was crowded with gravel trucks and was extremely dusty and dangerous. The State Police are a joy to us as they are not only efficient but kind and 100 percent cooperative.

*****SWM*****

CASA GRANDE

By A. T. Bicknell, custodian,
Coolidge, Arizona.

Visitors this month, 2,818; since October 1, 5,289.

WEATHER

Days cloudy	5	Precipitation	T.
Days clear	23	Maximum temp.93
Days partly cloudy . . .	3	Minimum temp.23

Arizona Archaeological Center Library

CASA GRANDE (CONT.)

Temperatures have dropped rapidly here at Casa Grande this past month, ten nights registering readings of less than 32 degrees. Winds with unpleasant dust storms occurred on November 7, 8, 23, and 24. On only two days, the first and sixteenth, was any rainfall noted, a trace both times and both during the night.

GENERAL

Travel this month shows an increase of 347 visitors over that of October, and an increase of 154 over that of November, 1937. However, the total is down from that of 1936 by nearly 100. The average time spent by each party is still going up, continuing the trend of the past three months.

OFFICIAL VISITORS

Al Kuehl was the only NPS visitor during the month. Forest Service visitors were: Robert Marshall, Russell Lord, John Sicker, L. D. Bonnet, and F. A. Baker.

INTERESTING PEOPLE

As candidate for the title of unusual visitor No. 1, we suggest Mr. R. A. Belinger of Signal Mountain, Tennessee, who arrived on a horse on October 31, just one day short of a year after he left Nashville--on the same horse. Traveling by easy stages, and stopping where he wished, he has covered slightly over 3,000 miles in the past 12 months.

For those who think that our own 1,000 mile summer vacation trip is a long journey, I might mention Mr. and Mrs. S. S. Tyler, of London, England, who visited the monument during the month--they drove here in the car they had shipped from home, British license and all, and planned to take it with them to Brisbane, Australia, where they will make their future home. Or, as another example of far off visitors, is the couple who came from Adelaide, Australia, with the sole purpose of seeing the entire United States--they should be quite elderly people when they return home.

For consideration as being the "prize" story of the month, we wish to submit the following. Mr. and Mrs. Tyler, referred to above, were evidently well educated people, of what might be called "the upper classes", and they spoke with a pronounced English accent--rather on the "Hahvawd" side. The guide who took them through the ruins and museum, when asked how he had liked them as a party, remarked, "They did not speak very good English."

USE OF MONUMENT FACILITIES BY THE PUBLIC

November travel; 1938 - 2,818; 1937 - 2,664; 1936 - 2,909; 1935 - 2,165.

Of the 2,818 visitors in 912 cars, 2,331 were contacted on guided trips to the ruins, the museum, or both. Three hundred thirty parties were conducted through the ruins, for an average time of 36.8 minutes per party. In the museum, 218 parties were contacted for an average of 23.0 minutes. The number of separate groups picnicking on the monument increased considerably

CASA GRANDE (CONT.)

over that of last month with 71 parties totaling 375 people. In addition to 50 children and teachers from the Pima Indian school at Blackwater, two other special groups visited the monument. Twenty-one young men and women of the ballet troupe which performed recently in Phoenix made up the first party; the other was composed of six of the district sales managers of American Airlines, who came here as the first of five weekly trips scheduled by the officials of the company in an attempt to familiarize their personnel with the interesting scenic features of this region.

TRAVEL

During November, people from 43 states, the District of Columbia, and five foreign countries registered in the visitor book. Of the 1873 persons who signed the register, 822, or 43.9 percent were from Arizona; 475, or 25.4 percent from California; and 77, or 4.1 percent from Texas.

NEW EQUIPMENT

A new floor lamp was purchased for the bachelor quarters.

ANTIQUITIES

Mrs. Gipe finished her work, the restoration and repair of the Casa Grande pottery collection, on November 10. Not all of this much needed work has been completed, but such funds as were available under this year's appropriations have been exhausted so the work should be considered as finished for the year, at least.

CASA GRANDE SIDE CAMP -- CCC

Job #50 - Shop: The door guides were installed, as well as most of the conduit and wiring. Six man-days expended.

Job #51 - Warehouse: The doors, except in the storage room, and the windows throughout the building have been hung; the scratch plaster coat was put on in the watchman's quarters and office. Man-days expended - 59

Job #52 - Oil House: The building is now complete except for installation of the transite shelving, the door locks, and the painting. The fireproof doors were hung and the steel window sash glazed, as well as the conduit and wiring completed. Man-days expended - 30.

Job #53 - Guide Service: The same three guides are still contacting visitors, Mungerro helping the Headquarters clerical staff, and Scholz working for the naturalists as mimeograph operator and general handy man. Both Coyle and Rodgers spent several days in the hospital at SP-3-A, during which time Scott Hall, the extra guide, and Sheffield bore the brunt of the building work. Coyle developed a rather severe cold so soon after his appendectomy that it was thought advisable to take him to the hospital, and Rodgers was taken up for removal of cactus spines which had worked into the knee joints of both legs. Man-days 135.

Job #55 - Making adobes. 51 man-days expended.

CASA GRANDE (CONT.)

Job #60 - Power Line: The transformer protective wall has been completed, except for the exterior plastering, the concrete slab base poured, and the cable, an armored parkway type, laid from the new transformer station to the pump house where it connects with the residential area distribution point. In addition, the conduit and wiring from the new station to the new utility area has been laid and is almost ready to connect up. Man-days expended - 101.

Job #62 - Equipment Shed: The only work done on this building was the laying up of the two front pillars which support the roof. The remainder of this work is held up until the arrival of the steel roof beams. Man-days expended - 5.

Ten man-days were expended on camp construction, completing the new educational building except sealing the interior. The building was painted and is now in use. Windows were installed in the bath house as well. Saturday mornings have been utilized as clean-up days for the camp which is now in very good shape. Safety meetings have been held each Thursday evening.

Foreman Joe Hobbs returned to duty on the 21st, having been on sick leave since November 1. During his absence, W. M. Campbell came up from Chiricahua to take charge of the camp. During the month, a new five-tube radio was purchased for the camp. It is reported that it plays only one tune--"Rancho Grande". From October 28 to November 7, Francisco Garcia was on emergency leave status, to visit his home, as his mother was not expected to live. On November 1, the mess of the camp was officially shifted from SP-3-A, in Phoenix, to Sp-6-A, 16 miles north of Tucson. The mess funds are in good shape, but took a slight "beating" on November 24 with the purchase of two turkeys.

The camp was inspected as follows: November 24, Captain Meadows; Nov. 2, Lieut. Willson; November 9, Lieuts. Willson and Kielling; November 19, Captain Meadows. Chaplain Hurt was in camp one evening during the month holding religious services.

*****SWI*****

NAVAJO

By J. W. Brewer, Jr., park ranger
Tonalca, Arizona.

Visitors this month, 21; since October 1, 71.

Arriving in nine cars, 21 visitors registered at Betatakin. No register is provided at Koot Seel or Inscription House.

TRAVEL STATISTICS

Nov., 1938 -- 21; Oct., 1938 -- 50; Sept., 1938 -- 59; Nov., 1937 --

EDUCATIONAL STATISTICS

Two field trips; One average number in party; 267.5 min. average time

NAVAJO (CONT.)

Mr. S. I. Richardson of Inscription House Trading Post know of no visitors to that ruin, and as far as I know the only party to visit Keet Seel was when Hosteen John guided a party of three to this grandest cliff dwelling of them all.

GENERAL

It was on November 22 that Hosteen John and Fannie Wetherill took Sallie and me, aboard four fine Navajo-Arabian ponies, to Keet Seel. After the gasps of "oh" and "ah" about the ruin, the glaring absence of protection against stock presented itself. On the floor of the cave, we found numerous tracks where sheep and cows had wandered over the stubs of walls and across the reconstructed roof of the pit-store-house. Something must be done to prevent this damage. The ranger is in agreement with the custodian that a fence that will be stock-proof is needed. On the way up the canyon we had seen two bunches of cattle, about 15 head in all, not far below the monument. We also saw one coyote, but failed to get a glimpse of the famous Botatakin Lobo. For the rest, this part of the monument is in excellent condition and a word might be said here on the splendid CWA work under the direction of John Wetherill, Milton, and the Haydens. Keet Seel looks good for many years to come. Milton has also done a fine job of disposing of the tremendous rock fall at Botatakin reported by Bill.

On November 18, John Neil of the Indian Service very kindly provided saddle horses and guided Sallie and me to Inscription House, where only the date of the Inscription remains. The letters in the name of the inscriber are completely gone. In the second room to the west of the inscription, we found a broken corrugated olla. It had been excavated between the wall and sandstone at the back of the cave. Mr. Neil tells us it was removed whole (in July, 1938) but that the pot-hunter tried to carry it out full of debris and it broke from the weight of its contents. While I was gathering up the pieces and putting them back into the excavation to cover and preserve them, Sallie reported a red fox leaving the cave.

PARK SERVICE VISITORS

Engineer J. B. Hamilton made two trips to Botatakin. The first trip was before I took up duties here, and the second was on the seventeenth when, with Mr. Bradley, Hamilton surveyed the spring-to-rim water situation, and then all of us made a search for a house site and trail location. Regarding the trail location, after talking it over with Hosteen John, we agreed that it would be feasible to run the trail down the canyon from the head, building it about eight feet above the wash bottom. We think, from the landscape angle, this would be better than blasting a trail thru the cliff, since the sheer cliff walls contribute a great deal to the beauty of Botatakin's setting.

A Mr. Stahl signed the register "NPS" with a marginal note, "Ranger should be reported for hiding in ruins while visitors are on the monument": (Perhaps this should be placed under "Matter of Unusual Interest" since the

NAVAJO (CONT.)

only ranger assigned to Betatakin was in Flagstaff on the date Mr. Stahl registered.)

WEATHER

Application has been made to Walter B. Hare, meteorologist in charge of the U. S. Weather Bureau in Phoenix, for official instruments to be installed at Navajo National Monument for use of a cooperating observer.

Unofficially the temperature has been recorded as follows: high, 52 degrees on the 18th; and low, 15 degrees early in November. Majority of days have been clear. Two light snowfalls have occurred since this monument was last reported.

ACTIVITIES OF OTHER AGENCIES

John Neil, range rider for the Indian Service, has offered to help protect our far-flung units. Mr. Neil's help throughout the winter months will be much appreciated. His base camp is near Inscription House Lodge and his range surrounds Inscription House Ruins.

The Shonto CCCID unit, under the supervision of Mr. Moan, is keeping the roads to the monument in unusually good condition. Mr. Moan greatly accommodated the ranger by loaning him a tent and stove for cooking.

NEW EQUIPMENT AND IMPROVEMENT

A used 20 gallon tank is now equipment installed as an auxiliary tank on USDI-13913. A considerable amount of time has been spent organizing a filing system for monument correspondence, etc. Our hope is to maintain a regulation filing system as soon as a cabinet can be provided.

GENERAL

It wasn't so easy pulling away from Aztec where we were really beginning to feel at home--we had some nice friends there--and not the least among them, Cal; he reminds me of an old saddle--looks like a weather beaten old saddle, doesn't he Boss? And like an old saddle he has a nice soft lining. We hope his tummy stitches quit itching and that his foot start--then maybe he'll come over here and see some real stuff, where they rolled up De Cholly and Mosa Verde and called the combination Navajo.

One thing nice to find here is the splendid feeling of the traders toward Bill; everyone speaks well of him and I believe he's been a good salesman of NPS around here.

On the way here we stopped in and watched the Old Wheel Horse inspecting the excavation for his new house at Walnut, and got down to Wupatki to meet Corky, see the stabilization work Davey is supervising, and talk a bit with our Navajo friends.

*****SWM*****

TONTO

By Gordon Gilbert Philp, in charge,
Roosevelt, Arizona.

Travel this month, 218; since October 1, 492.

Except for an occasional wind, the weather during the month has been ideal. These periodic gales blow up the dust and create the illusion that fog is over the Tonto Basin. According to my thermometer, the temperature for the month has varied from a high of 70 degrees to a low of 25 degrees. There has been no precipitation and a majority of the days have been cloudy.

Being maintenance man, I've naturally devoted most of my time to such work. The two one inch faucets have been re-placed with standard equipment. An attempt has been made to repair the museum roof. Rain is essential to ascertain whether or not the job is satisfactory. While on the subject, I might mention that the storage room now has a new roof of heavy, durable, asphalt paper. Also, the debris, rats, and their nests have been cleaned out so that now there is space for a number of items.

The problem of dogs and cats has been dealt with by the making and placing of a sign relative to their freedom. Department of the Interior road signs have been re-touched, so that the marksmen may again have un-marred targets at which to shoot. During my first few days upon the monument, I occasionally ran across empty shot-gun shells. Since, however, signs prohibiting hunting have been placed with the results that no further violations have been noted.

The approach road is in fair condition. I've found that to merely cover the innumerable protruding rocks of the road bed with soil is not enough. These rocks must be removed, whether they be large or small, and the resulting holes filled. The procedure is slow but the results lasting. The worst sections of the trail are receiving some attention, also.

In view of the fact that my duties here are such that complete travel figures could not be kept, none except the following are offered. On an average during the week two cars a day visited the area. On Sundays there have been about six per day.

Roosevelt Lake, as seen from the monument, is dry. Its sandy shores and bottom remind one of a miniature desert. However, no longer is the water being allowed to flow out, and accordingly the level behind the dam is gradually rising.

*****SWN*****

PIPE SPRING

By Leonard Heston, acting cust.
Moccasin, Arizona.

Visitors this month, 237; since October 1, 505.

There is not much to report from this monument this month outside of the travel figures and a few general statements about the condition of the place.

The visitation to the fort has dropped considerably below that of October

PIPE SPRING (CONT.)

and people that did come only stayed on the average of 26 minutes per party, although our travel through the monument has been a little more than last month. Most of this travel either did not stop or paused just long enough to get a little water. Total visitors: 31 to the Fort; through the monument 204; and two in the camp ground who will be here for two weeks doing dentistry in the CCC Camp.

I have spent most of the month working at cleaning up weeds and planting trees south and east of the meadow, around the residence area, and road leading to it; also around the two toilets so they will be hidden from view from the parking area. I planted six Carolina Poplars, 20 Silver-leaf Cottonwood, and 18 others. I have some more to plant when I can get the ground soaked up and ditches made. This additional planting is where the wash has been filled in, just south of the parking area.

Our weather has been rather cold throughout the month with storms for three days, some high winds, but clear most of the time. The daily record shows the following; clear days, 20; cloudy days, four; partly cloudy, six. Temperatures taken by one of the CCC foremen showed nine above on two mornings. It is the feeling of most every one that we will have another hard winter with lots of snow, and every one is working hard to get in enough wood and coal for heat and supplies to eat to last them, if we do get snowed in again.

There has been no CCC activity on the monument this month as we have only one approved job that we can work on, that of wash elimination, and I called this off so that we could purchase materials for some of the other jobs.

The custodian took two days of annual leave on November 14 and 15. I had planned to go deer hunting, but sickness and other things prevented me from going this year. I did not have anyone take my place at the monument during these two days as I figured there was not enough travel and, as it turned out, they were two of our windiest and coldest days of the month.

I am getting along fairly well with my work, with days when I don't get done what I should and other days that things seem to go like clock work. Take it over the month, I am holding my own and believe I am doing a little better than last month. Anyway I hope I am.

*****SWM*****

GRAN QUIVIRA

By George Boundey, custodian,
Gran Quivira, New Mexico.

Visitors this month, 70; since October 1, 329.

The natives here say this month has been a sample of the old fashioned winter. We have had eight inches of snow and the thermometer has stood around zero much of the time. High winds have drifted the sand across the highways and made hard going.

With the exception of a small acreage around Claunah, the bean crop was almost a complete failure in this country. The summer rains came so late that frost caught the beans before they developed and when these were cut and piled, high winds covered them with sand causing almost a

GRAN QUIVIRA (CONT.)

complete loss.

Our visitors this month have come principally from the El Paso districts and were on their way to the football games in Albuquerque. Most of them stopped to get warm and incidentally to look over the ruins.

About a hundred goats have invaded this country, nobody seems to know where they come from but they are proving a great nuisance to the farmers as well as to this monument. Fences seem to be no barrier to them.

In spite of freezing weather we have kept our bird baths open to the birds and judging by the immense flocks that come, this must be the only open water in the vicinity.

WPA workers have graded seven miles of the road between here and Socorro, this section had never been graded before and by running the grader over the whole road, they have put this road in fairly good shape.

Quite a force of men are again working on the road between here and Carrizozo putting in culverts and cutting down the higher grades. Many people are beginning to use this road and once it is in good shape, I am sure it will become the main route between El Paso and Santa Fe points.

*****SWM*****

AZTEC RUINS

By T. C. Miller, custodian,
Aztec, New Mexico.

Visitors this month, 962; since October 1, 1,935.

GENERAL

Travel has been good for this season of the year at this monument. While the number of visitors has not been so great, the quality has been excellent. It has been noted that the visitor is not staying in the ruins quite as long as he did a month ago, but this is due to cold weather. While we have had many bright sunny days, it is quite cold here early in the mornings and late in the afternoons. Three light snows have been recorded during the month. All roads have been open and in fair shape most of the month.

WEATHER STATISTICS

Max. temp.76
Min. temp.8
Clear days . . .15

Partly cloudy days11
Cloudy days.4
Total precipitation32
Melted snow was recorded for the month

NEWSWORTHY VISITORS

Williard W. Beatty, Director of Education of the United States Indian Service, Washington, D. C., was an interested visitor on October 24.

AZTEC RUINS (CONT.)

Stanley Tanner, concessionnaire, Chaco Canyon, was here on October 26. Charlie Amsden, Southwest Museum, was here most of the day studying our artifacts in the Museum and renewing old acquaintances. Mr. Amsden remarked that our Museum was the most informative that he had seen in New Mexico.

NATIONAL PARK SERVICE OFFICIALS

Custodian Lewis T. McKinney visited here October 24, November 11th, and 18th. Gordon Vivian, Archeological Foreman, was here several times in connection with the Mobile Unit. Custodian and Mrs. Faris, and the little Faris, Jimmie, and Theodore Cronyn from Canyon de Chelly were over to see a good ruin on November 2.

Engineer A. E. Underhill arrived November 18 to begin work on the completion of our trail system. To date many of the holes in the court caused by settlement, where water has been entering during wet weather, have been excavated and clay is being tamped into them. This work was started on November 21 with a five man crew, and to date 24 loads of dirt and six loads of rock have been hauled, and the court has begun to shape up. When Underhill comes into one of these monuments, he certainly makes the dirt fly and gets things done in a big way. He hit his first snag today when our old water pump broke down. It was necessary to re-leather the pump and to make other repairs and improvements in order to get water for this project.

District Engineer John H. Diehl and Engineer Horace Miller were official visitors November 19, looking over the trail project and the work accomplished by the Mobile Unit. Mr. Diehl complimented us on the waterproofing and wall capping project. This made us feel good because Jack has never been too strong on bitudobe.

MOBILE CCC UNIT

Norman Yazzie and Agapito Atencio left for Crown Point to attend First Aid School October 28th and returned on November 4th.

The bitudobe was moved from the temporary shelter to the basement of the Administration Building for better protection, on November 1.

Rooms No. 1,2,3,4,5,6,7,10,11,12, and 13 have been waterproofed. Walls have been capped around all these rooms except Rooms No. 10 and 11. We hope to get this done at an early date.

Work was started on the Roofed Kiva stabilizing the walls and waterproofing the top with bitudobe under approved plan. After removing the lumber and tar paper roof, it was necessary to remove the four inch concrete slab that was put on the kiva in the early days by Earl Morris.

Both roofs have served their purpose as the tar paper roof not only was an eye sore, but leaked badly. The concrete slab was badly cracked--caused by settlement. And it proved to be too much weight for the roof beams. We hope to be able to report next month that this kiva roof has been completed as this will be the greatest improvement in looks that has ever been made around these ruins.

AZTEC RUINS (CONT.)

INTER-MONUMENT TRANSFERS

One ABC oil-burning heater was transferred to Bandelier National Monument on November 8.

PERSONNEL

James W. Brewer Jr., park ranger, was transferred to Navajo National Monument during the month. Jimmie and Sallie left Aztec Ruins October 31.

Custodian Miller took annual leave on November 7 and 12.

Brewer's personal effects were moved in Truck No. 8121 to Navajo National Monument November 9 by Bud Shriver. Bud had a little hard luck on the trip as the generator burned out and had to be replaced at Holbrook. Bud reports that Jimmie and Sallie were getting settled in a hogan at Shonto for the winter. We certainly do wish the Brewers well with their new assignment, and their new home. We have heard from them and were glad to learn they are well pleased with their new set up. The best of luck to the Brewers.

MAINTENANCE, IMPROVEMENTS AND NEW CONSTRUCTION

A new radiator has been installed on truck No. 8121 and both trucks, 8121 and 8122, have been winter proofed with Prestone.

The monument water pump is being overhauled. All leaves have been raked, piled, moved to the lower end of the monument, and disposed of.

YUCCA HOUSE AND HOVENWEEP

I left Aztec Ruins at 7:45 A.M. November 17 to inspect Yucca House and Hovenweep National Monuments. Arrived at Yucca House at 10:00 A.M. and inspected the ruins. Everything was all right at Yucca House. The three holes dug by pot hunters and reported by Roving Ranger Peterson were inspected. Pete had refilled the holes part way with rock and dirt. No new evidence of vandalism was noted. Three large cock pheasants were seen near the monument boundary.

I left Yucca House at 12:20 P.M. and arrived at Hovenweep at 2:20 P.M. Considerable snow was in evidence at Hovenweep and the wind was very cold. The sheep are just beginning to invade the Hovenweep country, which is their winter quarters. All groups of the Hovenweep Ruins were inspected except Cajon. The sheep have not yet reached the monument property as they are camped two miles north of the Hackberry group.

I contacted the foreman for the Adams Sheep Co., Jose Montanya. He is in charge of two herds and a total of 5,000 sheep in that vicinity. Mr. Montanya promised his cooperation with us this winter, and it is hoped that the sheep herders will not let their sheep drift into the ruins.

I left Hovenweep at 4:30 P.M. and started on the north road by the

YUCCA HOUSE AND HOVENWEEP (CONT.)

way of Ackman and the main highway. After traveling on this road the distance of seven miles, I was forced to turn around and retrace the seven miles and take the McElmo Canyon road. Due to four inches of melting snow and ice on the roads, I was unable to pull the hills. However, the roads in McElmo Canyon were fairly dry, and I made the trip back to Aztec Ruins by 10:00 P.M. A total of 271 miles over difficult roads. I made it all in 14 hours which I call extra good luck.

No evidence of vandalism was noted at any of the ruins.

TRAVEL

Nine hundred sixty two visitors entered the monument in 307 automobiles coming from 33 states and the District of Columbia. Foreign countries represented were Argentina and Sweden.

For the corresponding period of last year, 771 people entered this monument in 215 cars. This is an increase of 191 people and 92 cars for 1938.

*****SWI*****

CHIRICAHUA

By Frank Fish, custodian,
Douglas, Arizona.

Visitors this month, 412; since October 1, 896.

Employment increased during the month at the Bisbee mines and the Douglas smelter. On November 1, the smelter started its fourth furnace. Miners are working a 48 hour shift per week and receive pay for 50 hours or time-and-a-half for all work over the new 44 hour week.

The weather has been dry during November, a continuation from September and October. The first killing frost around headquarters occurred the 3rd as compared with November 15 for last year. Cold nights have been the usual thing with many windy days making the vicinity of Massai Point undesirable from the visitor standpoint. The total stay of all visitors shows a decided drop, and it is believed that the cold, penetrating wind is the reason; however, a party of Chicago girls claimed it made them feel at home.

Approach roads have been in good condition. Construction has started preparing the McNeal-Douglas stretch of State Highway #81 for surfacing. The county has completed re-alignment of the Monument-Dos Cabezos road. However, due to the dry weather, this section has many chuck holes and dust pockets. The USFS-CCC camp in Cave Creek is improving the road over the Chiricahua to Portal and U. S. 80. A gate has been placed across the White-tail truck trail used for telephone maintenance and this will be kept locked as soon as a lock with sufficient keys can be procured.

Visitors show a decided drop over last year and, according to the Arizona Highway Division, all ports of entry into the State show a decrease.

CHIRICAHUA (CONT.)

From that standpoint it is interesting to note that this has been the first month at Chiricahua that out-of-state visitors have outnumbered the home state population.

	Cars	Visitors	Out-of-State
1938	108	412	210
1937	145	717	258
Decrease	<u>37</u>	<u>305</u>	<u>48</u>

Note: A large number of CCC boys arriving in trucks was shown in last year's report.

Statistics: (Educational)

	No.	Attendance	Guide Min.	Total stay in monument
1938	57	263	3065	10,275
1937	50	356	2343	20,134
	<u>+ 7</u>	<u>- 93</u>	<u>+ 722</u>	<u>- 10,000</u>

National Park Service officials on business during the month were: Ward Yeager, Al Kuehl, Jerome C. Miller, and J. H. ...

Chiricahua is receiving some excellent publicity through motion picture shorts of scenery shown in theaters. ... of people ... me the picture was in Bisbee around the first of the month.

The local CCC camp did excellent work in carrying out their assignments on the search for the lost boy, Jerry Hayes. The child wandered away from his parents' camp and became lost on the southern end of the Chiricahuas on November 11. The Camp Officer, the project Superintendent, Henter Stratton, and foremen were out during the entire search of eight days and put in a lot of overtime. The little boy's body was found the morning of November 19.

*****SWI*****

CHIRICAHUA CCC

By William Stevenson,
project superintendent,
Douglas, Arizona.

On November 11 the entire camp was called to assist in the search for five year old Jerry Hayes who was lost in the vicinity of Rucker Canyon. The child's body was found November 19 after eight days of searching. Approximately 1000 men aided in the search which was directed by the U. S. Forest Service. Mr. and Mrs. Hayes reside in Lowell, Arizona. Seven days were lost to the projects due to this hunt, which left a total of only 13 working days for the month.

Two hundred square yards of rock banks were sloped on Bonita Highway, three and one-half miles north of the Sugar Loaf truck trail intersection. Materials were used for surfacing. One quarter mile of road was resurfaced on the red clay hill south of Bonita Park by utilizing these materials. Four hundred square yards of dirt banks were sloped one and one eighth miles west of Bonita Park. Materials were used to provide "cushion" on the road and to dress fill slopes. One quarter mile of Bonita Highway was resurfaced near the monument boundary.

Work continued on the administration building and furniture project A.

CANYON DE CHELLY

By Ted Cronyn, park ranger,
Chin Lee, Arizona.

Visitors this month, 48; since October 1, 1934.

The present writer has been at de Chelly a month now, and is beginning to get a glimmering of what it is all about. Christian Faris was here until November 14, and did all he could to break me in. It was nice to find good that the Boss sent me up here well in advance of Johnwill's departure.

While Johnwill was still here, we made several trips to the White House lookout and down the trail to the ruin. One day we went up a gulch to Spider Rock, then up del Muerto to Mummy and Messere Caves. Several times we drove up the Canyons to White House and Intelope House. Got stuck in the sand every once in a while, especially when I was driving, although it is a fact I've got my average reduced way down now. It's a fact.

One bright day, Johnwill drove me up on the Lukachukai road until we were opposite Cross Trails in del Muerto. Then I walked down into the Canyon, up del Muerto a little, then down to the junction and up to the White House, topping out on the White House Trail. Quite a hike for a recruit, but I figure there's no way to learn the canyons like walking through them.

Our lowest temperature during the month was six above zero. Only a few nights like that, but several with temperatures around 15 degrees, and hardly a night that she does not freeze. The north and south winds have blown up dusters several times, in spite of their telling me that the wind blows only in the springtime. A couple inches of snow fell in one storm, but it disappeared within a day.

Johnwill and I made an inventory of tools and equipment. Now we shall see how our list reconciles with the charges against us in Coolidge.

Our visitor count showed a total for the month of 48 people, which is a slight advance over November last year. Cozy McSparroh does not plan to take any visitors up the Canyon until spring comes; he sold his balloon-tired chariot and will fix up another one for 1939.

News-worthy visitors during the month were Dr. Don Tresidder and Mrs. Tresidder, of Yosemite, who were accompanied by Mrs. A. R. Dennis of San Francisco. Dr. Tresidder is the head man of the Yosemite Park and Curry Company, who are the principal operators in Yosemite; and Mrs. Tresidder is the daughter of David Curry, pioneer operator there. Doctor Tresidder has been around the national parks quite a bit, and we were elated when he wrote that he "feels that de Chelly is one of the most remarkable places in the entire Park System." It wasn't a form letter, either!

We have had several visitors from the Indian Service at Chin Lee. Mostly these good friends drive up to the White House Lookout, but occasionally a couple of them ride horseback up the canyon a bit.

This month we haven't had any Park Service visitors at all. Let this be an invitation to the Southwestern Monuments, to Region III, to the whole Park Service, to come up and look the place over. Perhaps you better not all come at once, but do come anyhow. The ranger rattles around in this

CANYON DE CHELLY (CONT.)

big house like a grain of corn in a gourd.

On his latest trip to Gallup, the ranger paid particular attention to the existing "de Chelly" signs along the road, and the vacant places where such signs might be. This to store up information for the future, next spring maybe. Only one thought shall be set down here: "CANYON DE CHELLY NATIONAL MONUMENT" seems to be a lot of words on a directional sign beside a road. Too many words for the speeding visitor to grasp. What the public is interested in is "CANYON DE CHELLY" and the arrow or the distance. Why not put "National Monument" in small letters, or omit these two words entirely?

*****SWI*****

MONTEZUMA CASTLE

By Earl Jackson, custodian,
Camp Verde, Arizona.

Visitors for the month, 584; since October 1, 1,185.

During the month 26 states were represented, and four foreign countries: Canada, Australia, Phillipine Islands, and Germany. Visitors arrived in 160 cars.

SPECIAL VISITORS

There were no Park Service visitors during the month. Other visitors: Lieutenant Charles E. Miller and Lieut. W. W. Good, of CCC Co. 311 at Sedona. Mrs. R. G. Stevenson, secretary, Williams-Grand Canyon Chamber of Commerce, was an interested visitor. Mr. and Mrs. G. W. Gordon and Mrs. James F. Porter of Illinois, were very interested. As friends of Mr. Ickes, they found the Park System of closer interest than do the average run of visitors. J. B. Erich, of the Mayo Clinic, Rochester, Minnesota, was interested. On November 20, 24 CCC enrollees from the Clear Creek camp, under the charge of Lieut. R. J. Ford, spent half an afternoon with us. An unusual amount of interest in the museum was shown by them. Mr. and Mrs. S. T. Browne, of Chevy Chase, Maryland, visited the monument. Mr. Browne was for many years with the Department of Justice in Washington.

WEATHER AND ROADS

Precipitation.	0	Min. temp.	14
Days cloudy.	3	Mean Max.	69.29
Days partly cloudy . . .	4	Mean Min.	30.9
Max. temp.	85		

The valley is extremely dry. A haze of dust and sulphur smoke from the Clarkdale smelter fills the air a good part of the time, and roads are just about as objectionable as they can be and still be passable, with many rough stretches on the Cornville approach where construction is still going on. All approaches are quite corrugated, and we hear constant com-

MONTEZUMA CASTLE (CONT.)

plaint from visitors about roads.

The only unpaved portion of Highway 79 (The Oak Creek Canyon Highway) is soon to be paved. This is a stretch of 3.5 miles north of Sedona. Contracts were let a few days ago on this job, and are now in process of being cleared in Washington.

Beaver Creek is now running quite a stream past the Castle. Always dry below that point in the summer, it starts running in winter whether it rains or not. Evidently the cooler weather causes a less rapid loss of water through evaporation.

MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTION

The Chevrolet pickup truck was greased, oiled, tuned up, and new spark plugs put in. A great deal of worthless old lumber was sawed up for wood. Thirteen additional "No Hunting" signs were put up on the boundaries. The monument is now completely paved. As a result of a road change near Cornville, it was necessary to relocate a directional sign. Other directional signs were patrolled to make sure they were still standing.

Two museum cases were made and new exhibits installed in them. The museum was re-arranged, and two of the old cases altered.

PERSONNEL

Ranger and Mrs. Ed. Alberts were on annual leave from October 28 to November 6 inclusive taking in some of Ed's old stomping grounds in California.

PUBLICITY

On November 11, A. R. Hromatka, a photographer on assignment for General Motors, was in and took several pictures of the Castle and lower ruins. He returned copies of the pictures for our files, and they are truly excellent. They are to be used in a motorlog to appear soon either in the Los Angeles Herald or Los Angeles Examiner.

GENERAL

I have talked with a number of business men lately on general conditions in the central part of the state. Nowhere was business as good this November as during the same month of last year, but general optimism seems to prevail for a pickup soon.

This monument is receiving a black eye on the map because of its approach roads. Travel is 'way off compared with last year. The Cornville road has been pretty well torn up in places for a year now, and a lot of work is still to be done on it before it can be called a first class road. In the past this road has brought the highest percentage of our visitors, and with its temporary bad reputation we are hard hit on travel. There have been two days this month without a solitary visitor. A few years ago, such a day, even in December or January, would have been a

MONTEZUMA CASTLE (CONT.)

rare phenomenon.

The camp grounds are receiving little use now. Rough roads and cold weather have kept the usual Sunday picnickers to a minimum. We had two parties of overnight campers during the month.

*****SWI*****

BANDELIER

By George Shelly, acting
custodian,
Santa Fe, New Mexico.

Visitors this month, 275; since October 1, 1938

PERSONNEL

Custodian Harkins left on November 5, taking his accumulated annual leave, and will be returning in December with Mrs. Harkins, who has been visiting her mother in Montana.

VISITORS

Visitors to the number of 275 came to the monument in 97 cars from 19 states, three foreign countries, and Washington, D. C. A total of 29 field trips and 31 museum trips were made with 127 people taking field trips and 115 taking museum trips.

For guiding visitors through the ruins, this month has been one of the worst possible. An immense drop in visitors from the same period last year has several causes; snow and bad weather during the early part of the month made the roads almost impassable and several instances were noted where cars came as far as Ancho Canyon, five or six miles from the monument, and then turned back, not knowing of the piled stretch they had almost reached on this end of the road.

Guided trips dropped in percentage as a large number of our visitors were hunters and their families who had been driven to the canyon overnight on account of the intense cold encountered camping out. Hunters are very difficult to interest in taking trips through pre-historic ruins. The few out-of-state visitors made trips a pleasure.

IMPROVEMENTS

Cleanup on the oil job on the road was completed and if we may use a little slang, it is sure a "Lu-Lu". The ranger station and concessionaire's utility area have been razed and, when planted, will look as nature intended.

MAINTENANCE:

Due to rain, snow, and wood haulers, the road to the monument is in a

BANDELIER (CONT.)

deplorable condition. We have done no work with the exception of using the drag on Otowi Hill. While in Santa Fe on the 15th, I contacted Mr. B. G. Dwyre, assistant highway engineer, who informed me that the highway maintenance crew would do some repair work on the road to the monument. While on the Otowi Section the 22nd, I noted a truck dumping dirt on Culebra Hill covering some of the projecting rock, and the men informed me that they had instructions to maintain all the way to Frijoles.

The comfort stations have been drained and closed due to the early and extremely cold weather. The cook stove from the ranger station has been exchanged for the one in Residence No. 3 which is very unsatisfactory. The miscellaneous equipment from the ranger station has been stored in a room of the utility area designated for that purpose. The washing machine and ironer having new DC motors have been placed in the garage of Quarters No. 1. This is not a very satisfactory arrangement except for the Sholly family, but will have to be endured until other arrangements have been made for a wash house.

BEEFLE CONTROL

Through a cooperative agreement with the Soil Conservation Service, the beetle trees and snags from the adjoining Ramon Vigil Grant have been felled and cut into cordwood for the monument. Some 17 active beetle trees were cut and, with the snags, we have approximately 50 to 60 cords of the 100 permitted.

MUSEUM

The following articles were received from the Berkeley Office; 12 mounted labels for Case No. 22, One map of north central New Mexico, and one map of North and South American Indian food areas for Case No. 1.

DONATIONS

A book entitled "The pottery of Santa Domingo Pueblo," by Kenneth H. Chapman, with compliments of the Laboratory of Anthropology, Santa Fe.

PARK SERVICE VISITORS

Charles A. Richey, A. E. Underhill, Raymond Higgins, Hugh M. Miller, Eric Reed and party visited the monument during November.

WEATHER

Days clear	22	Mean Max.	55.51
Days cloudy	4	Mean Min.	22.00
Days partly cloudy	5	Mean	38.75
Max temp.	68	Precipitation	.84
Min temp.	1		

BANDELIER CCC

By H. B. Chase,
Project Superintendent
Bx 669, Santa Fe, New Mexico.

Completion is being withheld on the Lobby and Sales Room unit of the Operator's Development pending receipt of a heating unit. During the month the kitchen unit has been installed and basement floor completed of the Operator's Residence. Upon the installation of the floor furnace, this project will be 100 percent completed.

All plastering has been completed, flagstone floors ground, and all door and window openings installed in the Cabin "A" Unit of the Hotel Development. This unit is now ready for painting and staining. During the month all plastering has been completed, door and window openings installed and, with the exception of one room, the flagstone flooring has been ground in Cabin "B" of the Operator's Development.

All wall construction has been completed, roofing material installed and nipped on, basement floor completed, skylights installed, and at the present time the carpenter crew is busy installing door and window openings and linen closets in the Comfort Station. Also in connection with this project, rough plumbing has been installed.

In addition to the work on the various projects of the Operator's Development, the carpenter crew has prepared a considerable amount of furniture for installation in the development.

Quarrying of building stone, for use in wall and floor construction, and for use in future buildings in the Operator's Development, has gone forward all month.

A new project, Razing Undesirable Structures, was started on Nov. 1. Under this project, the old ranger station has been demolished and the area is now ready for landscaping. Also the stable used by the concessionnaire has been torn down, there remaining at this time some clean-up work before this area is ready for landscaping.

Among other new projects started this month, was the Fuel Oil Distributing and Storage System. Under this project, the 1,000 gallon storage tank and approximately one half of the distribution lines have been installed.

During the latter part of the month, another new project was started, i.e., Hot Water System, Operator's Development. Under this project considerable work has been accomplished on the stone conduit to house the hot water line.

Work has gone forward on the Walks, Walls, and Soil Preparation projects during the latter part of the month.

*****SWI*****

NATURAL BRIDGES

By Zeke Johnson, custodian,
Blanding, Utah.

Visitors this month, 23; since October 1, 114.

Yesterday evening I wrapped up all three of the bridges and carefully laid them away for the winter, locked up the tents, and rode back to Blanding. I will leave here tomorrow morning for a 15 day trip. Junior and I with our ladies are going to Boulder Dam, Los Angeles, on the coast to San Francisco, and back by Reno to Salt Lake City. If they stay at Salt Lake for a month or two, I don't know yet. I put the truck in the Grayson Garage, a very good place.

There were 23 visitors at the monument this month, I contacted all but three, and they came in on Sunday while I was in town after the mail. I spent 1,320 minutes with visitors, so you see I had a lot of time to work on the trail. It snowed on November 11 and 12 and no one came out after that. I had to use my chains all the way to get in over the road.

We completed the trail work laid out for us, and I feel that it is a very much nicer and better trail than was expected by either the engineer or myself. We put in many more steps than was first planned and much longer steps; then surfaced it with red shale all the way and I am proud of it. Then we started a real trail north of Chinle toward Sipapu. We spent seven days on it and used three days shooting the toilet pits and moving the toilets. The pits had to be shot out of solid rock. They are located in a much better place than before.

The weather has been ideal for working with the exception of two days. It was stormy and cold but we kept on working. Junior and Stanley are expert trail builders. I kept down my expenses by borrowing two hammers and a crowbar and an emery wheel to sharpen the drills. So we kept down expenses as much as possible so that we could have a few dollars to doll up the trails in the spring. The only bad luck we had was that Junior smashed the end of the front finger on his left hand and I let a crowbar fall on my left big toe. I doctored it for a few days then, when I came to town, I went to let a doctor take a look at it, and, without warning me, he took a pair of pinchers and ripped the nail off. Talk about hurt! Well, it made me squeal for a minute but I was thrilled to see it lying on the table. Cost me three dollars for four dressings, and it is still sore and tender, but I am getting along all right.

I am sending you under separate cover two rolls of films, but I am afraid the pictures will not be good for, as you know, the whole side hill is in the shade this time of year. It was a very clear day and we did the best we could to get good pictures so we are hoping that you will get some idea of the trail job which we did and of which I am very proud. We made a fine job of the hill that has always been an eye-sore to me, and I am sure that it is the only place that the trail leading toward Sipapu could be located. I sure would have been thrilled if you, Boss, could have looked our job over, but perhaps you can see it next season. We carried red shale from three different places and paved every foot except the rock steps.

NATURAL BRIDGES (CONT.)

Since the storm, the roads have been so bad that there was no one coming to the monument, so I figure the travel is over for this year. I will be glad when spring comes once more so that I can go back to camp and enjoy that lovely trail we have now down the hill to Owachomo. All best wishes to you, Boss, and to all the gang.

*****SWM*****

CHACO CANYON

By Lewis T. McKinney, cust
Chaco Canyon, New Mexico.

Visitors this month, 430; since October 1, 833.

Well, Old Man Winter has started blowing his breath over into God's country once more, bringing the nights down to zero and the days remain around 40 to 45 above. If you see any of the "brass hats" coming this way tell them to be sure and bring all the blankets they have and to borrow a few, because we have piled on all the cover we have and then thrown on an old set of chain harness to keep the edges of the covers down. Boss, if you had some of this cool breeze down there about July you could make a fortune selling it at a nickle a breath. *Of course, you couldn't sell any to King, Steen, or Dodge because they wouldn't want it, because it was exotic air and if they should take a deep breath of it (as you know they would, so they would get their full nickle's worth) it would spoil their primeval ways.

ROADS

Are still in pretty bad condition, except the rocky hill north of Bonito. Gordon has been dumping the surplus materials from his drainage work on this hill and at present it is better shape than it has ever been.

WEATHER

Colder than a custodian's attitude after the Educational Department has just paid him a call, and instructed him to brush his purple hat and to change his collar ornaments and maybe shine his shoes after they have spent the night with him and used all his polish.

Maximum	78	Clear days	20
Minimum	1	partly cloudy	7
Precipitation	.50 of an inch	with three inches of snow	
		Cloudy	3

One hard, stiff and cold wind on the 17th.

*No sale, Mac. All the air that ever gets down here from the Chaco is hot. - Ed.

CHACO CANYON (CONT.)

CATS AND DOGS

Will some kind hearted soul please give me some advice on this matter. If there were some two thousand (2000) Navajo Indians within your vicinity and each had from one to three dogs which followed them to the Trading Post each time they came, turned over all garbage cans in the canyon while they were here, and chased your rabbits and ground squirrels on the way in and on the way out, and you had asked them in a white man's nice manner to please leave their dogs at home when they came to the monument, just what would you do? Will each "GENTLEHEARTED CUSTODIAN" and any one else that reads this please give me some advice in the next monthly report?

WILDLIFE

Only the porcupine we saw at our front gate last Saturday night when we arrived home from a dance at Crownpoint wasn't so wild. Charlie thought for a while that he was going to spend the night with us, because he just loafed around the house for quite awhile before going on his way.

VISITORS

Of the 430 visitors who visited the monument this month, 124 were furnished guided trips through the ruins and museum. They came in 143 vehicles, from the following states; Arizona, California, Colorado, Florida, Illinois, Missouri, Nebraska, New Mexico, Utah, Wisconsin, and Washington, D. C.

*****SWM*****

MOBILE UNIT

By Gordon Vivian, foreman,
Chaco Canyon, New Mexico.

Here where Mac thinks, for publication anyway, that it is God's country, and I suspect it of being Admiral Byrd's, it is getting no warmer fast. I have no idea what Mac is going to put in his report for this month, but I do hope that his feet are as cold and his fingers as stiff as mine while he's doing his report. He's been out a lot today and since he lost his coat a while back, we two are probably going to do all right in trying to convince you folks in the Coolidge tropics that it is getting cold up here. When over at Walnut Canyon, I asked Charlie Steen just how the Coolidge weather was now. Charlie with his feet in his boots and his boots on the stove and a leer on his face said that it was wonderful, warm, balmy, delightful, lovely and the best time of the year. Come up and visit the glacier that's moving down our ganyon now,

Charlie.

By way of personal data, I started off this month by being behind on last month's reports after taking some annual leave. I haven't said anything about this annual leave since I doubt if it would interest anybody, but the neighbors hereabouts say that they wonder why when I get a vacation I go off up into the mountains to sleep out on the ground, cook in the open, etc., and late in the fall at that. They wonder why, after living out in what would be the bush if anything grew here, I don't take a few days off in somebody's warm hotel where there are no icicles in the breakfast food. I am beginning to see their point. Perhaps I should have my leave marked, "For use only in warm climates and not to be expended sleeping on the ground."

Being fairly well behind with my work, I left it and went over to Walnut Canyon and Wupatki to inaugurate with Dale, Charlie, Davy and Paul some of the stabilization work to be done on these ruins with Superintendent Parker's CCC crew. Despite the large number of bosses, the boys made a creditable showing. In fact most of their work was a little too good. I'm sure that with the experts all out of their way now, Clay Parker's men are doing some excellent stabilization. The opportunity for the trip over there was greatly appreciated even though I couldn't sleep with the trains running through Paul Beaubien's kitchen practically all night.

This month we have expended 423 man days. Of these 100 were at Aztec on the waterproofing and kiva roof jobs. At Chaco ten days were put in completing the support work on three rooms at Del Arroyo, 12 days on wall patching and the remainder, 301 days, on job 1, drainage of the plaza and rooms at Bonito.

The work at Aztec is coming along and the week of November 21 Cal. started replacing the lumber-and-tar-paper roof on the small kiva with one of stabilized mortar, this to be covered with a layer of top soil. To date the lumber and tar paper roofing have been removed, a portion of the concrete slab roofing under this has been removed, and work is in progress repairing the west circumference of the exposed wall.

Under wall patching, although we have not laid any wall, we have been preparing a quantity of small poles for use as lintels and to replace some of the smaller roofing poles that are, although decayed or badly burned, still in place. We intend to catch up on most of the smaller areas of wall patching this winter now that it is too cold to lay heavy sections of masonry.

The drainage work has been our mainstay this month. We have completed all of the cutting and sloping on the southeast corner of Bonito. Twelve hundred yards of material have been removed, 555 from the east and 645 from the south. Work will continue along the south wall through December. All of the dirt removed is first worked over for building stone and this is sorted and piled according to size. The remaining dirt has been used to add an extra layer of protection to the water lines and spread on the road between camp and the north boundary of the monument.

We have been grading the surface outside these rooms down to a level

MOBILE UNIT (CONT.)

equal to or just below that inside the rooms. All along this corner the exterior ground level has been from one to two feet above the floor levels inside.

*****SWM*****

TUMACACORI

By Louis Caywood, custodian,
Bx 797, Nogales, Arizona.

Visitors this month, 1,375; since October 1, 2,291

Winter weather set in for November. No moisture fell during the month and the range conditions continue very dry with waterholes drying up. Cattle have been shipped to market in larger numbers than normally because of the shortage of water.

Visitor travel has stepped up considerable for this month. A total of 1,375 visitors came in 418 cars. This is quite an increase over 953 for the same month last year.

PARK SERVICE VISITORS

On November 1, Supt. Frank Pinkley and Park Naturalist King were monument visitors. Sunday, November 20, brought J. H. Teyra, associate engineer, with A. C. Kuhl and Jerome C. Miller, associate landscape architects.

NEWSWORTHY VISITORS

November 11, Nancy Pinkley paid her first visit to the monument since the cases were installed in the new museum. November 19, Mrs. Hugh Miller, Coolidge, stopped with a friend from Albuquerque on their way to the border city. November 21, Dale and Hortensia King brought Dale's sister, mother and father who were visiting them from Denver, Colorado.

LECTURES AND MOVIES

On November 4, at 8:00 P.M., Dr. Russell C. Ewing, professor of history at the University of Arizona at Tucson, spoke on "The Mission as a Frontier Institution". The lecture was attended by 108 people. Father Victor Stoner and Dr. Frank C. Lockwood attended the lecture from Tucson.

The last lecture of this series will be given December 9 by Father Victor R. Stoner, his subject "The Spanish Missions of Arizona". Father Stoner's talk will be illustrated.

On November 18, a colored moving picture of Arizona scenes was shown by Mr. and Mrs. John E. Fast of Rancho Escondido for the Mexican population of the vicinity. Due to the large crowd, these pictures were

TUMACACORI (CONT.)

shown on the front wall of the museum building. More than 130 attended. A most interesting part of the picture was that showing scenes of the Tumacacori Easter ceremony of 1938.

ACCESSIONS

Some very valuable museum accessions were received during the past month and have been placed on exhibition in museum cases. Mr. M. C. Little of Nogales, Arizona, gave five old Spanish law books. These tomes contain a compilation of the laws of the Indies known as Las Siete Partidas. The laws governed New Spain in the sixteenth and seventeenth centuries and were printed in Salamanca in 1576 and Valladolid in 1587.

Mr. Harry Karns of Nogales, Arizona, gave seven articles of iron manufacture and of Spanish usage. The lot includes two large Spanish spurs, one flintlock mechanism, two lanceheads, one handmade spike and one Spanish stirrup decorated with Castillian rose design.

Mr. J. Rochlin of Nogales, Arizona, gave a copper pitcher of Spanish or Mexican origin. It was beaten out of a single piece of copper and shows skilled workmanship by its unknown maker.

These articles are all of local significance and are of such a size that they fit readily into museum cases. They were accepted by letter in each instance according to the policy established regarding loans and gifts.

It is felt that the Tumacacori museum is the logical place for such accessions and the custodian believes that the National Park Service is extremely fortunate in receiving such gifts. It is hoped that more material of Spanish origin will come to light and find its way to this museum.

*****SWM*****

WALNUT CANYON

By Paul Beaubien, custodian,
Flagstaff, Arizona.

Visitors this month, 528; since October 1, 1,492.

There were 217 contacts in the museum and 368 in the field. In general, the weather has been clear and cold. A few windy days stopped the run of visitors a bit, but the one snow storm on the 11th had little effect.

Park Service visitors included Jimmy Brower, David Jones, Al Kuehl, Gordon Vivian, Dale King, Charlie Steen, J. H. Tovrea, Hugh Miller, Luis Gastelum, Jack Haile, Ward Yeager and Charles Carter. "Tov" finished locating the proposed water line for the monument, and Hugh was here to arrange for the procurement of the water from the Water Users Association. Al Kuehl, Jack Haile and Charles Carter inspected CCC projects. Ward Yeager gave me some instructions on recording forest fires,

WALNUT CANYON (CONT.)

and arranged with Project Superintendent Parker for some intensive fire fighting training for the CCC boys next spring. Luis was at the CCC camp checking equipment and bookkeeping, but came to the monument one evening to help me with a filing system which isn't a system yet.

I spent two days at Wupatki with Gordon, Dale and Charlie Steen learning about ruins stabilization. In discussing ruins stabilization for Walnut Canyon, it seems that many truck loads of yellow clay, similar to that used by the Cliff Dwellers, will be needed to fill gaps in the walls of 300 dwellings. Two to three inch layers of this clay have been exposed in the trench for the sewer line, but not enough has been found yet. It is hoped that a more plentiful source will be discovered when the water line is excavated. Foreman Jordan at NFSA, has located a good supply of a yellow clay somewhat similar to that desired, just back of the CCC camp.

It seems impossible to find a water well in the vicinity of Flagstaff. After spending \$5,000 for two surveys by the International Geophysicists, the City of Flagstaff spent \$10,000 more drilling a 1,020 foot well without finding water. The well has now been abandoned.

On November 25 a B.P.R. engineer was here to get Wupatki's key to the N.F.S. cabin near Wupatki. He said the engineering crew had arrived to make the survey of the Wupatki entrance road.

Two of the CCC guides assigned here have been dropped, and two others, Carl Thurston and Ben Marsillio, have taken their places. The latter two, with Ralph Brishline and Chet Loeffler, spent several days at Wupatki with David learning to guide visitors there. Ralph and Carl are now living in the cook shack there, while Chet and Bonnie are coming to Walnut each work day. Of the two coming here, one meets the visitors at the observation point, while the other is screening the dirt moved in any of the trail work near the dwellings. Two pottery anvils or hand stones, a few polishing stones, four arrow heads, a few oliverella shell beads, a few minute beads, and about 100 pounds of pot sherds have been recovered. Very little is found each day, but I believe that this fine screening is worth while. The dirt needs to be moved in any case.

*****SWM*****

WALNUT CANYON CCC

By H. Clay Parker,
Project Superintendent,
Flagstaff, Arizona.

The month of November shows the most progress made in the Walnut Canyon trail and the sewer line. The excavation on the ranger cabin job has been slow and considerable delay was caused by a change in plans, but everything is now ready to start pouring concrete tomorrow. The entrance and utility roads are practically all cleaned and construction can be started as soon as supervision is available.

WALNUT CANYON CCC (CONT.)

Preliminary location for the water line has been completed and plans sent in. Plans are now being received for the Residence and Utility Area at Wupatki and the Administration Building and Parking Area at Walnut Canyon which provides plenty of work for sometime to come.

Following a request from the Forest Service, we have a standing detail of 11 men ready for fire call at a moment's notice. This will probably be maintained until all chances of forest fires are eliminated.

Although several deer were killed within gun-shot of where some of our CCC boys were working, the open season passed without harm to any in this camp. The working area was well posted with "HUNTERS BEWARE" signs.

The David Joneses have closed the "Bridal Chamber" at Wupatki and are traveling south for the winter. Two of the Walnut Canyon guides are now taking care of things at their old stand. The loss of the Joneses, however, is partially made up by some very fine work on the part of the Walnut Canyon Custodian, Paul Blaubien. Paul very quietly slipped out on his vacation and just as quietly slipped back, but not long after his return a bride appeared upon the scene which all accounts for the changes in the old bachelor quarters. It is plain to see the effect, not only on the ranger cabin but also on Paul--head up, hair combed, coat buttoned, and a general rejuvenation. It will never be the same around the old station.

"ALL'S WELL THAT ENDS WELL."

*****SWM*****

CAPULIN MOUNTAIN

By Homer T. Farr, custodian,
Capulin, New Mexico.

Visitors this month 1,000; since October 1, 4,100.

November so far here at Capulin may go down in history as one of the coldest for many years. Zero was reached on three different days during the month, and we have had three different snows, one of them being about six inches and the other two about one inch each. In spite of all this the roads have been open all over this country except a couple of days only. Visitors have been rather few this month, I think largely due to the cold weather, only about 1,000, and these did not seem to enjoy themselves a great deal as some of them thought it too cold to get out of their car and only viewed the old crater from the car window.

Both trails were closed part of the time due to snow drifts, but are now open again. I do not try very hard to keep the trails open all winter on account of the very few who care to travel them during the winter. However, I do try to keep the road to the top of the mountain open all winter.

I note since deer season closed that we still have our deer. This

CAPULIN MOUNTAIN (CONT.)

monument is not very large, only containing 680 acres, and our deer have to go elsewhere for water and sometimes during open deer season they do not all get back, but this year I do not believe we have lost one. Our deer here have learned that when they are shot at, even two or three miles from this monument, they simply hightail it for their sanctuary, Capulin Mountain.

Our camp and picnic ground has not been definitely located and developed for this monument as yet, but we hope to get to that early in the coming spring. Picnickers would not enjoy a bank of snow for their lunch ground right now anyway.

This custodian has put in a right smart of work on the road and trails this month. The manner in which we determine the amount of "right smart" is best defined by one of my neighbors who sold a cow to another neighbor here and stated that the cow gave a right smart of milk, the amount later proved to be approximately one half pint.

*****SNL*****

EL MORRO

By R. R. Bullong, custodian,
Ranch, New Mexico.

Visitors this month, 115; since October 1, 339.

The month of November draws to a close, cool weather is beginning to remain with us, and visitor travel steadily decreases. We have had a few light snows, some sub-zero temperatures, and before long we expect cold weather to strike this part of the country. The range is dry, in spite of several light snows, and more precipitation is urgently needed.

VISITORS

A total of 115 persons visited this monument during the month, and of these 111 took guided trips. The remaining four were Park Service officials, and not counted as regular visitors. Our field trips around the inscriptions averaged 63.8 minutes--quite surprising, considering the cool weather, high winds, and the cold north side of the rock, where traces of snow lingered for some days. We held but one "office visit" of 95 minutes duration. Work on the interior of the new room constructed last month prevented the holding of more of these educational contacts.

WEATHER

For the past three or four days, temperatures have lingered around the zero mark, as minimum, but of course that is not cold. Minimum to date, four degrees below zero; maximum, early in the month, 63 degrees--a very hot day. We have had four light snows during the month. The

EL MORRO (CONT.)

custodian finds these cold evenings most enjoyable, especially when--as so often happens--the HCWP casually remarks about eleven p.m. of a cold, snowy night, that the woodbox in the kitchen is completely empty. The custodian greatly enjoys wandering outside in sub-zero weather, with strong breezes blowing, and waving an axe around for an hour by the brilliant glare of a small flashlight.

INSCRIPTIONS

Our below-freezing weather has interfered with the work of making latex molds of the inscriptions. The solution used will freeze, and it is therefore wise to attempt the making of these impressions only during some especially warm period, since the material is allowed to remain on the rock for about 24 hours. On the long worktable beside me reposes the mold of the de Vargas inscription of 1692, a highly successful result. Others will be made when weather permits. The earliest inscription--that of Juan de Onate (1605) has been inspected very carefully with a view to making an impression of it, but it has been decided not to attempt the making of a mold of this inscription with the compound now used, since there is some evidence of soft spots in the stone. It is thought these might pull away with the stripping away of the mold. For this reason, unless further inspection indicates that the rock is quite stable, some other medium may be used for the making of the mold of this, our earliest inscription. No chances of possible damage, no matter how slight, will be taken in the making of these impressions. Plaster of Paris has been obtained, and within the week the de Vargas mold will be used for the making of a plaster cast of this inscription.

COMMUNICATION

Last month we reported being somewhat worried about our short-wave transmitter, which had been in the East in the path of the recent hurricane that struck the coast where the transmitter was being subjected to final tests. These worries no longer exist. The transmitter has just been received, is undamaged, and all ready for its final tests at this monument. Materials for the construction of two temporary 40-foot masts have been ordered from Gallup and should be here the first of the coming week. Soon the preliminary field tests should be completed. While various factors such as proximity of rock to antenna, etc., will determine our operating range, we expect consistent results within a radius of quite a few hundred miles, and far greater range under more favorable conditions. So let the snows shut down on us--before much longer we hope we'll be in touch with the "outside" and ready for communication in the event of emergencies.

WATER

Word has just recently reached this office of the approval of the

EL MORRO (CONT.)

award of the contract for the drilling of the well. It is expected that work will start in the very near future. Meanwhile we haul our drinking water from the emergency landing field some four miles distant, and will continue to do so while roads remain passable. The water pool is solidly frozen over, the siphon line to the cabin disconnected to prevent freezing and bursting the pipe, and water from the pool is now carried to the cabin in buckets, after some little preliminary post-hole digging through the ice.

QUARTERS

Considerable time has been devoted to work in the new room constructed last month. Much chinking has been done between the old railroad ties of which the addition is constructed. In a mad moment of aesthetic enthusiasm, the custodian gave the inside door and window frames and facings a coat of white enamel. Results were astounding. The contrast between the old, weather-stained railroad ties and the smooth white enamel was shocking. Try to imagine a mud-ecked hippotamus with a powdered nose, and some idea may be had of the effect. The white enamel was hurriedly given a covering of dark blue enamel, relieved by orange curtains, and everyone breathed more easily.

Outside walls above foundations were lined with asphalted roofing felt and then covered with earth. The back wall was banked to a height of five feet, and the front wall to a height of about two feet. The resulting insulation makes the room very easy to keep warm with only a slow fire burning in the stove. The 16-foot table constructed last month has been varnished and equipped with electrical outlets. It is one of the most useful fixtures in the cabin, and is in constant use.

GENERAL

During the month we had the pleasure of a visit from Director McColm, Dr. Gould, Erik Reed, and J. E. Kell. of the Santa Fe office. We had planned to meet the day before in the vicinity of the lava beds, but missed connections and for six hours were within a few miles of each other. After an all-too-brief visit at the monument, they continued on to Gallup followed by the custodian who was going to town for supplies. Snow started falling soon after we reached town, and continued until about eleven o'clock that night. The trip back to the monument was somewhat slow, over the snow-covered roads, and in spite of chains on the tires much of the progress was made sidewise.

Mr. Arthur Soper, of Mosa Verde, was in the monument for several hours, and we greatly enjoyed his visit. We must not omit mention of the visitor who made a trip here for the purpose of inspecting "Spanish inscriptions dated 2,000 A.D." No trace of them is known to exist, and the visitor departed greatly disappointed.

In closing we again extend to the Southwestern Monuments personnel and to all in the Park Service organization best wishes for a most enjoyable Christmas season.

HEADQUARTERS

BRANCH OF ACCOUNTING

By Parke Soule, chief clerk,
Cochise, Arizona.

Vouchers prepared during the month, regular appropriations,	96	
Vouchers prepared during the month, CCC	122	218
Purchase orders issued, regular appropriations, Hdqrs.,	63	
Purchase orders issued, CCC	127	190
Allotment ledger sheets prepared, regular appropriations,	185	
Allotment ledger sheets prepared, CCC	86	271

Expenditures:	Total for Month	T. Date
1491000 National Park Service, 1939	\$ 6,102.43	\$22,307.38
148/91000 Nat'l Park Service, 1933-39	42.87	564.39
14-1010 Roads and Trails, NPS	10,499.05	17,442.68
Civilian Conservation Corps	2,309.88	37,756.74

MAIL COUNT: Official Mail Count for November, 1938.

Official mail, incoming - - - - -	3,394
Official mail, outgoing - - - - -	3,317
Official telegrams, incoming - - - - -	22
Official telegrams, outgoing - - - - -	34
Personal mail, incoming - - - - -	1,214

Grand Total Mail Handled - - - - - 7,981

*****END*****

BRANCH OF MAINTENANCE

By Gene Stonacker,
General Mechanic,
Cochise, Arizona.

Most of the work of the Branch of Maintenance this month has been in cooperation with the CCC work of installing the parkway armored cable, conduits, and wiring, of the new utility area. Some work was done to aid the CCC in construction of the new transformer station for the power line, as well.

In addition, the stoves in the Miller, Soule, and Pinkley residences were cleaned and adjusted; a sheet-metal lining put into the CCC shower bath stalls; wiring installed in the new CCC educational building; all cars here at Headquarters checked, radiators flushed, and Prestone installed.

BRANCH OF MAINTENANCE (CONT.)

He checked material and supplies to go to Tonto, removed the door and frame between the museum and the Headquarters offices, bricked the opening up, and plastered and kalsomined the walls.

One day was spent overhauling U.S.D.I. #8114. In addition, the usual servicing and minor repairs to the automotive equipment at the monument and Headquarters cars was carried on.

*****SWI*****

BRANCH OF RESEARCH AND INFORMATION

By Dale S. King, assistant
park naturalist,
Coolidge, Arizona

PERSONNEL

Park Naturalist King spent approximately one third of the month in the office, one third on ruins stabilization supervision and school projects at Wupatki and Walnut Canyon, and one third on annual leave. In addition, he took one and one half days sick leave.

Junior Archeologist Stoen was in the office the greater part of the month. He accompanied King to Wupatki and Walnut Canyon November 2-6 inclusive, and took one half day sick leave.

Junior Naturalist Dolac was in the office the entire month except for two days spent giving illustrated educational talks to the entire grade school population of Mesa, Arizona, and one day at Organ Pipe Cactus National Monument.

Plans were formulated for the distribution of staff personnel for the coming winter months and efforts concentrated on closing up such projects as might be adversely affected by such assignments. It is anticipated that Junior Archeologist Stoen will spend approximately two months at the Western Museum Laboratories at Berkeley supervising construction of exhibits for the White Sands museum, while Assistant Park Naturalist King will put in as much time as available in bringing to completion the unfinished cases at Bandelier.

In addition to keeping the office routine current, progress was made on the following projects: research on travel habits of visitors to the Southwestern Monuments, and on the status of bird banding at headquarters; pasting card envelopes in books in the library; exhibit room planning for the proposed administration building at Walnut Canyon; ruins stabilization at Wupatki and Walnut Canyon; accumulation of colored slides and motion picture continuities.

Following is a breakdown of the time spent by the various members of the staff on the several projects of this department:

BRANCH OF INFORMATION (CONT.)

REPORT OF MATERIALIST ACTIVITIES FOR MONTH OF NOVEMBER

	King	Steen	Dodge	CCC
GENERAL OFFICE OVERHEAD				
	Days			
Correspondence (82 letters)	2	4 $\frac{1}{4}$	2	0
Conferences and discussions				
With headquarters staff	1	0	$\frac{1}{2}$	0
With N.P.S. personnel	0	$\frac{1}{4}$	0	0
With visiting scientists	$\frac{1}{4}$	0	0	0
Library (file, issue publ., etc.)	1	4	1	2 $\frac{1}{2}$
Reports				
Compile and process Sup't monthly rept.	1	0	11 $\frac{1}{2}$	11
To Washington and Region 3.	1 $\frac{1}{4}$	$\frac{1}{2}$	1 $\frac{1}{2}$	0
Miscellaneous	$\frac{1}{2}$	$\frac{1}{2}$	0	0
Publicity				
Prepare info. and publ. material.	0	0	$\frac{1}{2}$	1
Check Region 3 publ. releases	0	0	0	0
Miscellaneous				
Construction (paint, carpentry, etc.)	0	0	0	0
Clean-up, inventory, maintenance.	0	1 $\frac{1}{2}$	1	4 $\frac{1}{2}$
RESEARCH AND EDUCATION				
Public Content				
Prepare and deliver outside talks	0	4 $\frac{1}{2}$	3	0
Relief guide duty at monuments	0	0	0	0
Office visitors (informational)	0	0	$\frac{1}{2}$	0
Museums and Nature Trails				
Planning and executing	1 $\frac{1}{2}$	1 $\frac{3}{4}$	0	0
Acquire, prep., catalogue specimens	0	$\frac{1}{2}$	0	$\frac{1}{2}$
Acquire equipment and supplies.	0	0	0	0
Arboretum (plan, plant, maintain)	0	0	0	$\frac{1}{2}$
Visual Education				
Edit, file, record slides and movies	0	0	$\frac{1}{2}$	0
File prints and negatives	0	$\frac{1}{4}$	0	0
Take and process photos	0	0	1	0
Miscellaneous				
Observation and bird band records	0	0	$\frac{1}{2}$	0
CCC Camp educational program.	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	0
Ruins stabil. project administration	6	6	0	0
S.W.N. Association projects	0	0	0	0
FIELD WORK				
Field trips	0	0	3	0
Protection patrols.	0	0	0	0
LEAVE				
Annual	10	0	0	0
Sick	1 $\frac{1}{2}$	$\frac{1}{2}$	0	0
TOTAL FOR THE MONTH	26	25 $\frac{1}{2}$	27	20

BRANCH OF RESEARCH AND INFORMATION (CONT.)

GENERAL ROUTINE

Nine reports were prepared and submitted during the month in addition to editing and processing the Superintendent's monthly report. They were: compilation of complaints received during travel year 1938, naturalist personnel service records, ruins stabilization school at Walnut Canyon and Wupatki, processed material other than administrative, compilation of form 8320 and Branch of Research and Information, wildlife census for 1938, talk program at Mesa public schools, CCC side camp educational program, and King's week at Chaco Canyon relieving Vivian.

Informational service was provided in the form of photographs and facts for the Phoenix Republic and Gazette famous Marcos de Niza edition which featured, among other Arizona highlights, the tourist attractions of the State. Research was started to develop information requested by the Washington office for use in the 1939 quarto-centennial program. A lengthy bibliography was prepared in response to a teletyped request from a teacher. The usual quantity of informational leaflets were issued and a re-run of 2,500 Casa Grande informational folders was made.

Approximately 100 feet of 16 mm motion picture film was exposed and 36 natural color slides added to the visual education library. Photography was curtailed by the sending of one camera to the factory for repairs and the fact that much of the casual subject matter has been acquired.

A standard method of cataloguing museum collection specimens was outlined in detail and will soon be made available to all field men.

King made a trip to Tumacacori to inspect the case refinishing problem which has developed at the new museum.

Arrangements for Steen's forthcoming trip to Berkeley were made and the various projects of this department reviewed with an idea of developing as efficient a program as possible for the winter.

Machinery was placed in motion to institute a wildlife survey at Chaco Canyon with the object of restocking the monument with antelope. Additional Scaled Quail will be introduced next spring according to word received from the New Mexico Game and Fish Department.

Efforts to obtain Moscalero Apache articles for the White Sands museum were initiated during November.

Supervision of the Casa Grande Side Camp educational program was continued. Due to the moving of shop equipment to the new industrial area, the two holidays of the month, and a slackening of interest among enrollees, the program has not held up as well as might be hoped.

SOUTHWESTERN MONUMENTS LOAN LIBRARY

As in former months, shortage of personnel prevented the cataloguing of the large number of library accessions. These publications were filed subjectively making them as accessible as possible pending cataloguing at a future time. Outstanding accession of the month was a gift of 21 issues of the National Geographic Magazine from Miss Gertrude Hill, formerly ranger-historian at Headquarters. A total of 186 publications were added

BRANCH OF RESEARCH AND INFORMATION (CONT.)

to the library , as follows: nine books, 89 periodicals, 41 bulletins, and 47 reports and reprints. In addition, a number of interesting and valuable original manuscripts, notebooks, and newspaper clippings were turned over to the library by Superintendent Pinkley. A number of damaged books previously sent to the Western Museum Laboratories for repair and recovering were returned during November, raising the average condition of the library property. A number of books were issued to field men and local students. Six books previously sent to Washington for binding were returned.

VISITORS

Park Service visitors to headquarters included Ward Yeager, Bill Stevenson, and Architect Foreman Boone of the Mobile Unit. Other newsworthy visitors were Senator Hayden, Senior Highway Engineer Brown of the U.S.D.A., and U.S.I.S. officials Wells, Davis, and Rhodes.

ACCESSIONS

The following items were added to equipment, supplies, and study collections of this office: one trimming board and one tool cabinet and carpenter tools for the museum truck, 36 slides and 100 feet of color film, 100 "pill boxes" for filing strips of motion picture film, 50 library leaflet holders, 6,000 record-card forms, one map of southwestern Arizona and northwestern Sonora, and a number of marine shells from the Mexican coast.

NEW OR UNUSUAL ACTIVITIES

A considerable increase in requests for educational talks was received during the month and the following were given:

Nov. 3-4 at Mesa, Arizona, to 1,200 grade school pupils.

Nov. 4 at Casa Blanca, Arizona, to 125 Pima Indians.

Nov. 8 at Ajo, Arizona, to 17 members Gibson Chamber of Commerce.

Nov. 12, to 14 members Coolidge, Arizona, Women's Club.

Nov. 21, to U. of Arizona Archeological Society, 200 attending.

Three of the talks were illustrated with colored slides, motion pictures, or both.

Notable progress was made in a previously neglected project. A growing interest has been expressed by local and state newspapers in news and feature items dealing with the various stations in the Southwestern Monuments group, but it has been impossible for this staff to find time to actually prepare copy. Local representatives of these various newspapers have been contacted and weekly "press conferences" arranged by means of which releases may be made and information on timely subjects provided with the least expenditure of time. It is hoped that this plan will render more active this function of the Headquarters Branch of Research and Information.

BRANCH OF RESEARCH AND INFORMATION (CONT.)

RESEARCH

A somewhat curtailed program of bird banding has been carried on at Headquarters since October 12, a report of which will appear in the December Supplement. An analysis of headquarters bird banding is given under the title "Why Band Birds" on page 435 of the Supplement to this monthly report.

The Southwestern Monuments Association bulletin #1, which has been held up since midsummer by lack of a typist, is definitely in the final stage and should be in the hands of the printer in December.

Observation records have been maintained and those of a human interest nature will appear in the December Supplement. Those for October are given on page 434 of the Supplement to this report.

CONSULTATION ON DEVELOPMENTS

In the regular Monday evening conferences, considerable discussion on various proposed developments has been made with a view toward an improved set-up for future plans. Conferences on the exhibit room development at Walnut Canyon resulted in several alterations greatly improving the usefulness of the room from the museum standpoint. The plans are now ready for final review.

IDEA EXCHANGE

Stimulated by the request for ideas issued by the Region Three office, Custodian Earl Jackson of Montezuma Castle has submitted a manuscript on the preparation of insects for live-mount display. It is planned to run this article in the December Supplement.

Use of "pill Boxes" for storing and filing strips of motion picture film prior to building continuity is proving a great time-saver as well as a protection to the film in handling. Each box is numbered and the film it contains listed. In building continuity, the entire sequence may be outlined on paper and the proper boxes withdrawn from the files and the strips spliced in proper order.

As a test prior to processing the entire series of color film, one reel has been sent off for treating by a process which is publicized to render the film 50 percent more scratch resistant and sufficiently more pliable that tearing and breaking is greatly reduced. It is hoped that this process, which is relatively inexpensive, will greatly lengthen the life of the film, thereby solving one of the greatest problems faced by this office in its visual education program.

*****SWM*****

VISITOR STATISTICS FOR NOVEMBER, 1938
SOUTHWESTERN MONUMENTS

Station	Employees		Field Trips				Museum Talks				Unattended	Total Inform-ational Contacts	Total Travel	Per cent Con-tact
	Per.	Temp.	No.	Atnd.	Time	Av. Atnd. Time	No.	Atnd.	Time	Av. Atnd. Time				
Arches	1	---	---	---	---	---	---	---	---	---	100	---	100	---
Aztec Ruins	2	3c	163	793	5545	4.7	33.9	109	4450	4.6	153	1602	902	166.5
Bandelier	2	3c	29	127	3230	4.3	113.1	21	720	3.7	143	242	275	---
Canyon de Chelly	1	---	3	32	1240	2.6	55.0	---	---	---	---	27	48	---
Capulin Mountain	1	---	---	---	---	---	---	---	---	---	100	---	1000	---
Casa Grande	2	4c	330	2321	12130	7.0	36.3	210	3000	3.8	427	410	2813	147.4
Chaco Canyon	1	---	30	124	2500	2.2	62.2	71	915	4.0	304	243	430	---
Chiricahua	1	5	37	203	7065	4.6	52.7	---	---	---	149	263	412	---
El Morro	1	---	25	114	1495	4.5	59.3	1	90	6.0	---	115	115	---
Gila Cliff Dw.	--	---	---	---	---	---	---	---	---	---	---	---	---	---
Gran Quivira	1	---	21	70	1250	3.3	32.5	---	---	---	---	70	70	---
Hovenweep	--	---	---	---	---	---	---	---	---	---	---	---	---	---
Montezuma Cstl.	2	---	91	467	4035	5.1	51.4	94	1380	4.3	52	836	584	143.1
Natural Bridges	1	---	61	21	1200	3.5	20.0	---	---	---	2	19	21	---
Narajo	1	---	2	2	335	1.0	33	---	---	---	19	2	23	---
Organ Pipe	--	---	---	---	---	---	---	---	---	---	500	---	500	---
Pipe Spring	1	---	11	31	150	2.6	36.3	---	---	---	204	33	237	---
Rainbow Bridge	--	---	---	---	---	---	---	---	---	---	---	---	---	---
Saguaro	--	1	12	46	160	4.0	15.3	---	---	---	1463	48	1500	---
Sunset Crater	--	---	---	---	---	---	---	---	---	---	164	---	164	---
Tonto	--	1	---	---	---	---	---	---	---	---	218	---	218	---
Tumacacori	1	---	191	892	4440	4.6	22.2	199	1253	6.2	123	2145	1375	---
Walnut Canyon	1	5c	145	368	3510	2.5	24.2	79	1303	2.7	107	585	528	---
White Sands	3	---	---	---	---	---	---	---	---	---	5760	---	5760	---
Wupatki	1	2c	20	47	1240	2.3	62.0	---	---	---	113	47	160	---
Yucca House	---	---	---	---	---	---	---	---	---	---	20	---	20	---
Totals	24	22	1172	5721	48754	4.8	41.5	828	4743	5.7	11098	10439	17320	64.0
Last Month	24	19	1326	6711	65714	5.06	49.5	955	4774	4.9	14679	11718	21970	53.3
Last Year	22	8	1097	5643	44374	5.1	40.4	722	3478	4.8	11546	9033	17795	50.7

PERSONNEL

By the Boss and others.

It has been a busy month and many things have happened, but the grapevine telegraph system hasn't been working any too well and as a result we are a little short on personnel news.

Beginning with what happened at home. First, I might speak of the travels of the Boss. During the month I visited Tumacacori, Organ Pipe, and White Sands. The trip to Tumacacori was a routine one but of course my desert gods had to be asleep and let me pick the custodian's day off and thus miss seeing Louis and Winnie who had gone to Nogales. The monument looked clean and orderly and we enjoyed our outdoor lunch down by the old well.

The second trip was a longer one and we went in force. Hugh, Natt, and the Boss went down to Organ Pipe and spent the night in Ajo where we talked to a meeting of the local people on the place of the Organ Pipe Cactus National Monument in the National Park Service. It was a very interesting meeting and if we can just live up to the impression we created there that night with our colored movies, colored slides and general talks, we will be all right.

The last trip was to White Sands, over one day, stay a day and home the third day, which was Thanksgiving and caused us to eat our turkey at Willcox in that restaurant with the competent and friendly waitress who sold us far more dinner than we should have eaten and caused Hugh to take time out for a nap and let me drive from Benson to Tucson.

Johnwill and Lena had unpacked their things and were getting settled down in the residence at White Sands and, incidentally, were looking forward to a much milder winter than they would have had at de Chelly. I notice, by the way, that Johnwill is using a qualifying word and that the White Sands is one of the finest monuments in the Southwest. He has now served at Casa Grande, Tumacacori, Aztec, de Chelly, and White Sands, so he has to hedge a little when it comes to the finest monument.

Tom and Mrs. Charles were well and we did enjoy the little visit with them. Tom's immediate occasion for a new supply of pep was that a scenic bus line is to begin its trips to the sands in the next week or two. You'd think Tom didn't have but a couple of visitors a week, the way he was congratulating us on the addition this would make to the other 110,000 visitors he had last year, and with just Johnwill and Joe to herd them with Tom helping out on Sundays and odd times!

I was talking with Jack Diehl by phone to Flagstaff this morning, neither of us yet having had breakfast, and he says he is getting along fine but busy, which is not surprising with all the engineering brought on by the new public works allotments.

PERSONNEL (CONT.)

Jack said Al Kuehl was sick a day or two but would be on deck today or tomorrow. Sorry to hear that and hope Al comes round all right.

Harry Hommen was in Flagstaff with Jack but will not get down this time to see us in the low country.

Tov. went up to Flag. to meet Jack and to clear up some odds and ends of work. We expect him back tomorrow.

Here's one Natt copied from a placard in a store window in Ajo the day we put on that talk: "Frank Pinkley, head of over 200 National Parks, is now in Ajo in the interests of the Pipe Organ National Monument south of Ajo. He will show wonderful colored pictures on the screen at Toggery Hall. Free to all. 7:30 P.M. Arranged by the Gibson Chamber of Commerce." Of course I told Natt it was a pretty fair estimate; 26 National Monuments would about equal 200 parks.

John Fast, whom most of you know by name at least, who has been our Naturalist Without Pay at Casa Grande these past winters, is, with Mrs. Fast, now located on their new ranch not many miles from the Tumacacori. They get their mail through Nogales.

Don Eggermayer and a cab full of cat contributed to the gaiety of riations a few weeks ago. In a cat clean-up at Casa Grande, the CCC boys furnished a cat which their camp had accumulated. Don, not wanting to kill it right there in camp, took pussy into the cab of the truck, shut the windows and started to drive off the monument. The cat, evidently doubting the honesty of Don's intentions, took fright and Don declares he had a whole cab full of cat for a few moments. He came back with a torn shirt and some scratches to prove it.

Which reminds us of that moonlight night when Hugh was a little late to an appointment in the office and sheepishly explained how he saw a cat on his way out and went back to get the old blunderbus. He crept up very softly and was just making ready to blow a shadow under a bush to kingdom come when he discovered what it was.

Lois Beaubien has arrived at Flagstaff and Paul and Lois are now at home at Walnut Canyon where we hope they will serve happily these many years to come. Lois isn't coming among strangers for she has been on the mailing list for the Monthly Report for a long time and must know everyone fairly well.

A note from Cy Harkins the other day said he was having a good time on his annual leave and he and Boulah would be back on the job before very long. They are in Montana and have been having some real cold snaps up there.

Meantime George Sholly holds down the Bandelier like a veteran and his first monthly report needs no apology because it is his first.

Gil. Philp has been over at Tonto this month working on roads and trails. Gil, by the way, seems to have made a ten strike by seeing a Ruby Throated Hummingbird down at Chiricahua. It seems this bird ought not to have been there and it can't be officially reported until we kill one and take the skin. Let us all be thankful they will take our word for the number of visitors; it would be quite a bother to produce the evidence.

PERSONNEL (CONT.)

Lewis McKinney came mighty near not getting his measurements in on the propped-up rock this month. It seems he forgot all about them in sending his report and then here they came by air mail a few days later. Which reminds me, Lewis, to say I am not the Ed. who signs on the bottom of page 395 in connection with some aeronautical controversy.

We have had two or three very pleasant compliments for Ranger Ed. Alberts on that article of his in last month's Supplement. I wish more of us would take the time to work up something like that.

We had a sorrowful letter from Frank Fish about a stove we had sent him. It seems the stove did not digest its food properly and finally filled up with soot and then backfired two or three gallons of the soot in the room. Frank said: "The little woman I'm married to didn't like it, and I wish you would send me some instructions on its operation." We rather agree with 'the little woman' and have written the manufacturers for their instruction booklet. We wouldn't like to have a couple of gallons of soot scattered around our living room, either.

Dale and Hortensia King had Father and Mother King and Dale's sister and nephew visit them for several days last month. Dale and Hortensia took some annual leave and they all went down into Mexico for a few days at Guaymas. They report a fine time although the fish seem to have been on their annual leave too.

Ted Cronyn is in charge up at Canyon de Chelly and the papers have just come through making him Custodian of that monument.

Carroll Miller seems entirely recovered from his operation, but he hasn't reported whether Amelia and the kids are free of the measles yet; we trust it is a case where no news is good news.

Charlie Carter spent quite a bit of time the past month in the north part of Arizona on official business. He is out at this writing but we expect him in any day.

Failure of the letter of transmittal to arrive at Walnut Canyon until several days after his receipt of the shipment of Portfolios on the National Park and Monument System caused Paul Beaubien to revamp his personal budget this month. Paul had blithely handed out several copies when the letter came in that he was to charge fifty cents for each set and that he would be held personally responsible for the money. And Paul a newly married man, too!

Good news comes to us from Gil. and Jane Philp in the form of an announcement of the arrival, on November 9, of baby Joan who tipped the scales at six pounds 12 ounces. We understand that both Jane and Joan are getting along fine and all of us sent heartiest congratulations to the baby for having acquired such a fine pair of parents.

*****SWM*****

MORE ABOUT THE EL MORRO LIBRARY

By the Boss

The following comes from Betty up at El Morro: "Several 'somebodies' down there at Headquarters were awfully good to me the other day. Five wonderful books arrived for our library,--all anonymous--- and I want to send, through you, a great big 'thank you' to the kind donors. The first day they were put 'on the shelves' (very theoretically speaking) two of 'em were snapped up and I know they are all going to make a big hit. Yesterday was library day and 25 books went out! People are beginning to have more leisure time now and my customers become more numerous weekly. This is the most gratifying job I ever undertook and more and more it becomes apparent that such a project has been needed all these years."

Which reminds me that the other night a little before I quit the office, I had a long distance call from Harvey Mott, who, among 19 other things, runs the book review column for the Arizona Republic, saying that he was going over to Tucson that evening and would drop off a box of books for Betty Budlong's library if I would tell him where to put them. We agreed that he would leave them on the front porch of the administration building and that's where I found them the next morning all safe and sound. Hugh, on his way to Santa Fe a few days later, took the box along and left it with Woody at the Hogan up in Gallup as he went through there, and Bud will pick them up the next time he gets into town. Thus another 25 or 30 books are added to Betty's circulating library. How did Harvey know? Oh, he and Mrs. Mott don't think the month is complete until they have read the Southwestern Monuments monthly report; they know half of our outfit by the first name through the report.

Which also reminds me, Chief, to say it was mighty nice of you to send those two handsome volumes on the Park Service to Betty's library, too. Which leads us to believe that you, also, read the Monthly Report at least now and then.

And that reminds me to thank the head of that Denver Museum, who is also one of our regular readers and came through with a donation for Betty's neighbors.

Here's Betty again: "It is fascinating to search around and find out just what kind of reading our people like. For instance, I discovered that one of our 'bachelor men' is crazy about anything that has to do with minerals. He was hungry for reading matter on the subject and didn't know how to get hold of it, so I wrote the Extension Service to see what they could give me along that line and they sent two publications of the School of Mines. He beamed all over when I gave them to him and a couple of days later he said: 'Why didn't I know about all this 20 years ago?' Yesterday another chap told me he'd read, in an old school book, something about the Conquistadores, and he'd like to know something more about them. So I've ordered some books on the

EL MORRO LIBRARY (CONT.)

Spanish Conquests in the early Southwest. That's where the thrill comes in--when I see a little 'education' begin to seep in. All unconsciously, to outward appearance, I slip in two or three good books along with the general run of western, which they adore, and, first thing you know, they are being read and enjoyed.

By 'good', I mean classics, Kipling, John Fox, Jr., etc.

Gosh, I'm probably boring you stiff with all this raving on, but I got so excited about the library I kinda forget myself."

No, Betty, there is a sort of mist in my eyes as I read of the fun you are having and think of the good you are doing, but you are very far from boring me to tears. I think, Chief, one of the very finest things about my job is the letters like this that come to the Boss from our girls in the field, full of enthusiasm and love for their surroundings as well as interest in the job they are on. They average two or three of them a month from the various Honorary Custodians Without Pay, and you have no idea how much heart they put in a fellow.

*****SWM*****

ARCHES

By Harry Reed, custodian,
Moab, Utah.

Note: Late arrival of this report necessitates that it be included here. Ed.

Visitors this month, 100; since October 1, 155.

WEATHER AND ROADS

We have had unusually cold weather all of this month. The temperature drops as low as 14 above every night and occasionally it has dropped to eight above. There has been no rain and very little snow so far.

The temporary road into the monument is in fair condition. The relocation of the road across Court House Wash is a real improvement. I do not believe floods will cause as much damage in the future as they did during the summer rains.

VISITORS

Despite the cold weather, many persons have visited the Arches this month. On Sunday Nov. 13th, 20 visitors were reported and on Sunday November 20th, 15 persons visited the monument. I do not have an accurate check on other days during the month but would say that no less than 100 persons have visited the monument during November.

I am glad to know that the signs will be made soon. With the addition of these, the monument road will be well marked. With the road in its present good condition, and with the signs installed, no one need

ARCHES (CONT.)

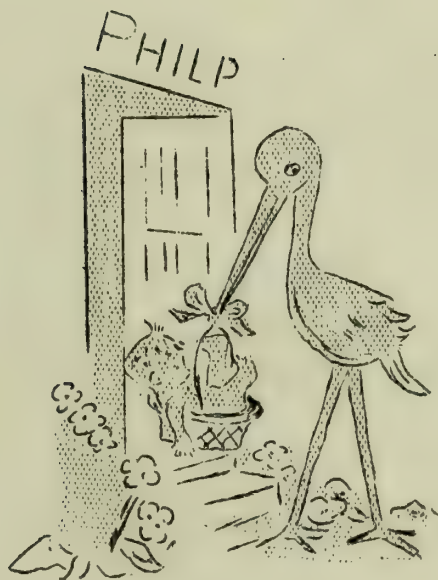
need have difficulty in visiting the monument during the winter months when there is no ranger stationed there.

*****SWI*****

ROCK-PROPPED-UP-FROM-BENEATH

On November 23, the rock measured 3-30/32 inches east;
4-7/32 inches center; 3-21/32 inches west.

*****SWM*****



Announcing
- JOAN -
November 9, 1938

OF GENERAL INTEREST—

Here is something that crossed the desk the other day, too good to go into the oblivion of the files and, I think, well worth the perusal of any reader of our Monthly Report, especially those readers who are a part of our own Service.

"Dear Boss:

During the present season of the year, when so much is heard and said on the subject of over-emphasis, I thought that perhaps a word or two concerning such matters might not be amiss. Leaving the de-emphasizing of football to the coaches, downtown and otherwise, do you not think that it might be well to attempt to do the same in regard to our attitude toward visitors; some visitors, at least?

I realize that I am probably the person least fitted to criticize among the entire personnel of the Southwestern Monuments; however, my inexperience might be somewhat compensated by bringing less of a routine viewpoint to examination of the situation which seems to be arising in regard to the class of visitor which we variously label "Newsworthy, Interesting, Special Party, etcetera". Going back through the monthly reports from the men in the field, I notice a constantly increasing emphasis placed on the visitor who is out of the ordinary run of "just plain folks", whether he be an official of some other Governmental branch, an archeologist, naturalist, college professor, or the like. There is no argument against feeling that these people are well worthy of special attention, while in our areas; in many instances we are able to derive more benefit, or information, than they acquire from us. What I do feel, however, is the need of suppressing a growing tendency to give this special service to the few, at the expense of the many who come to the various monuments without the inducement of professional or scientific interest.

There is no reason to quarrel with the specialists--the Naturalist, the Landscape man, the Geologist, Archeologist, or Wildlife Technician. Their functions are indispensable, and, properly coordinated, are invaluable to the men who must pass on the information acquired by the specialist to the traveling public. The avowed purpose and aim of the Service, however, is to benefit the masses, not the specialist, and in consistently following this policy, it is, or at least should be, imperative that all classes of people who come to the monuments should be treated as nearly alike as is possible. To be strictly mercenary about it, none of us should forget that, from The Director down to the newest and rawest Temporary Ranger, our salaries come from the pockets of the taxpaying citizen, who likewise makes up our largest class of visitor.

To sum up, in words of one syllable, the personal view point of one of your very newest rangers, I would say that it seems as if we could spend, not necessarily more time actually contacting the average visitor, but more time thinking about him, and planning our future developments with an eye to his eventual use, rather than to continue to think too constantly of the unusual, the "special" visitor.

The Supplement

S.

W.

M.

Monthly
Report

The Psychology of

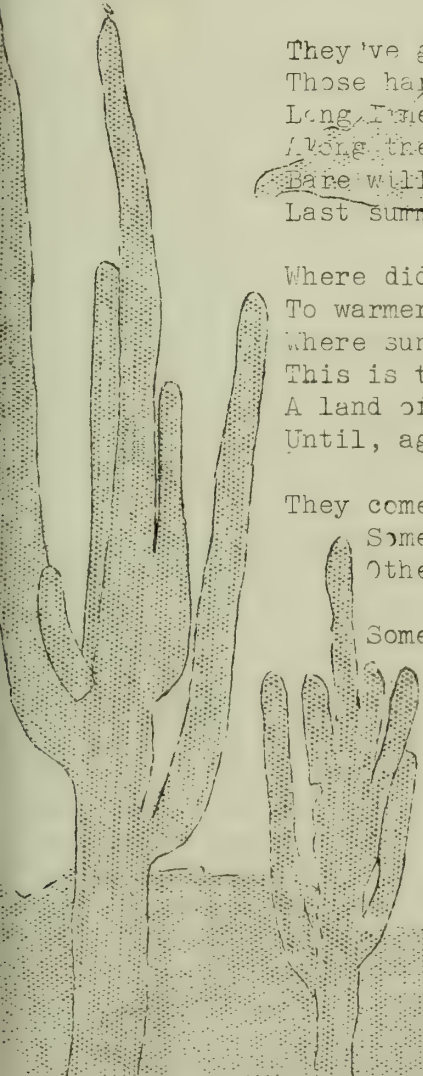
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SUPPLEMENTAL OBSERVATIONS

THIS IS THE SOUTH



They've gone! The threat of snow is in the sky;
Those harsh-voiced "V's" of geese have all passed by,
Long lines of ducks are no more seen in flight.
Along the shores of yonder ice-rimmed pond,
Bare willow limbs lift high, on leafless wand,
Last summer's warblers' nest, its builders gone.

Where did they go, those flocks of field and fen?
To warmer climes where seeds and bugs remain,
Where suns are warm and parched earth soaks up rain.
This is the land they seek, the great Southwest;
A land of mesquite, cactus, food, and rest
Until, again, they hear Spring's call to nest.

They come; urged from the North by chilly nights,
Some, like the geese and ducks, by mighty flights;
Others, more slowly, bush to bush,
and shunning heights.
Some go beyond, urged on as if by fear,
But others stop to spend the winter here,
And seek the same old spot, year after year.

N.D.

For the first time that we have noticed, termites are working in and on a living tree. One of the overmature mesquites near the Custodian's residence has had the trunk almost completely mudded over in the past two weeks, and part of one of the dead limbs is evidently the new home of the colony which seems to be working on the dead part intensively.

The gambel sparrows have returned, many of them having been noted during the month. Also, the Gambel quail that began returning to the residential area in September have now arrived in full force, and are to be heard all over the monument.

Which brings up the subject of predators: Recently several house-cats have adopted the area as a winter breeding ground and, during the past few days, have almost driven the ranger mad trying to dispose of them. One large Tom has been coming across the parking area nearly every evening, but is too wild, or too smart, to wait to be shot, as he always takes to the brush at top speed whenever a human being approaches. One evening he was sighted by Jr. Naturalist Dodge who gave chase, forcing him to drop a cotton-tail rabbit he was carrying in his mouth - apparently taking it home for dinner. So far he has failed to appear when someone is waiting for him with a rifle, but seems to have no such regard for side arms, as if he knew that the ranger was too poor a pistol shot to be feared. To date, the score is: Cats, four; dogs, two; but two more cats are still known to be hiding out somewhere on the area. One of the now defunct cats had killed and eaten at least two doves and one quail, by actual proof, before the boys at the C.C.C. camp caught it and turned it over for disposal.

*****SWM*****

PIPE SPRING PIPINGS

By Leonard Cotton

The Gambel Sparrows and Greenbacked Goldfinches are the only birds that have been here in any great numbers this fall. A few of the other birds that usually pass have been observed as they go this way on their flight to the southlands.

In the past it has been my habit to tell the visitors that there were only four different species of snakes that inhabited this country about the monument, the desert rattler, bull snake, ring snake, and the striped racer. I now have one more species to add to the list for on September 27, when we were coming off the hill, I saw a small snake which at first I took to be a rattler, but on closer examination I decided to call it a bull snake, so picked it up. Then I knew it was not either one but a new snake to me and one I had never heard of. Naturalist McKee identified it as the Spotted Night Snake, of which there have been a few collected in the Grand Canyon. It was about the size of a lead pencil, of a brownish grey, with dark brown almost square spots on its back, four or five rows in checkered position. I kept the snake several days in a glass bottle thinking I would get to town to get some alcohol to put it in, but one night I did not put the lid on tight enough and it got away. I will not be satisfied till I have another to show the visitors, along with the other snakes that I have.

Of interest was the description by Miss Mary Erickson, ornithologist from the University of California, of a method of marking birds other than by color bands. A chicken feather is dyed to the desired color and by means of Duco cement or ambroid attached to the tail feathers of a bird. She reports that it is much easier to identify the individuals in this manner, and not as dangerous as the color band. Of course, it does not work as well on some birds as with others; hence, necessitates experimentation should any of you desire to try the idea.

The experiment using juniper berries as bait for birds has not worked so well to this date due to the fact that the ground squirrels enjoy them, too. It is hoped that this will be attractive bait for pinyon jays and possibly bluebirds.

Those of you who have any interest at all in birds will appreciate the following article* by Cornelia Otis Skinner. So aptly does she describe the troubles of an amateur ornithologist that I could see myself trying to learn about the birds with a pair of field glasses and "Birds of New Mexico!" The article is reprinted through the courtesy of the author and the "New Yorker."

* Under "Random Papers" -- Ed.

*****SWE*****

MEN, MICE, AND LIZARDS AT WHITE SANDS

By Tom Charles

Looks like we have had some of the tops in wildlife technicians in October. We started off with Dr. Osgood, Chief Curator of the Field Museum, Chicago, who was in search of a few of our mice to make up a case in the Chicago Museum. Next came Dr. J. Eric Hill and party from the American Museum of Natural History in New York who are anxious to show their visitors the variation in white, black, and grey mice in this valley. And now Dr. Frank Blair and wife, who work with Dr. Lee Dice of the University of Michigan, are here studying the red mice of the red beds near Highrolls which he has and is reproducing in the Michigan laboratory. It was Dr. Dice who originally discovered the white mice of the White Sands in 1928. He has been breeding and experimenting with them since that time. Dr. Hill obtained a few of the white mice, one almost snow white specimen. Dr. Blair has confined his work to the red beds so far but has convinced me that there is sufficient variation in the color of our white lizards to make a beautiful case in the museum, for this lizard of ours is black on the lava beds, red on the red beds, grey in the valley, and white on the White Sands.

*****SWE*****

On October 15, in the evening, we found a Western Diamond-back Rattlesnake about three feet long traveling rather hurriedly over the roof of the museum. We gave chase and captured the specimen after it had deliberately fallen off the roof to escape us. It was uninjured, so on the following day it was crated and shipped to Dr. Floyd of the Chicago Academy of Sciences.

On October 21, at the Camp Verde High School, the custodian presented two reels of color film of Southwestern monuments to about 40 of the students. This was followed by a 35 minute talk on rattlesnakes, after which the students looked over the specimens I had brought for illustration.

We noticed an interesting thing the other day about the cicadas. They were making a terrific lot of noise when we arrived on October 10. On the night of the 16th we had our first freezing weather, with 30 degrees registered. This put a sudden and complete stop to the noise. Evidently the first freeze is what kills them.

In passing it might be mentioned that for several days this month the coyotes made more night music than we have heard out of them for two years.

*****SWI*****

OCTOBER BIRDS AT MONTEZUMA CASTLE

By Betty Jackson

The list of birds is rather small this month, since we ended our vacation on the ninth, but here it is: Arizona Cardinal, Mourning Dove, House Finch, Red-shafted Flicker, Cooper Hawk, Desert Sparrow Hawk, Ferruginous Rough-legged Hawk, Red-tailed Hawk, Ashy Ruby-crowned Kinglet, Kingbird sp., Gambel Quail, Western Robin, Gambel Sparrow, Sparrow sp. (Western Chipping?), Crissal Thrasher, Bridled Titmouse, Warbler (Audubon?), Cactus Woodpecker, Baird Bewick Wren, Canyon Wren, and Rock Wren.

Some of the species names have been omitted because I saw the birds at too great a distance to be certain of them.

The Gambel Sparrows have been singing more than I have ever heard them. They and the House Finches and the Sparrow sp. come every day to our "Oasis" where the lush plants grow by the leak in the faucet. The unidentified sparrows keep low in the grass and under leaves, so it is hard to see them.

The robins were first seen on October 21, a big flock of them, and on October 23 I watched them swarming in a blackberry below the castle. There was one on every twig, a dozen or so flying up to the sycamores with a great flutter, and a dozen more sailing down to take their places. Mostly they made no noise except the beat of their wings and an occasional chirp from the air as one started a downward sweep.

This is the first record I have of the Bridled Titmouse, but Norman says they come through here twice a year regularly. They are very unobtrusive, so it is not surprising that I have missed them before.

The Ferruginous Rough-leg was not seen on the monument, but I included him in the list because for a year now I've seen him in the valley, mostly three or four miles west of here, and never could figure out what he was.

OCTOBER BIRDS AT MONTEZUMA CASTLE (CONT.)

Earl and I were driving west from Camp Verde when we saw him get up beside the road with a gopher or rat in his claws. He flew beside us about ten feet above the ground, and then crossed in front of us. We clocked him at 40 m.p.h. or slightly less, Earl guesses 38. I've never seen that big a bird that close before. I don't know much about color phases in birds, but he must have been changing slightly from the dark phase toward the light.

A Desert Sparrow Hawk has been around since I started this, so he must be included in this report.

*****SWE*****

CHACO CANYON BANDING REPORT

By Carolle McKinney

	<u>LEW</u>	<u>REPEAT</u>	<u>RETURN</u>
Northern Shrike	0	0	1
Mountain Chickadee	1	0	0
Canyon Towhee	2	7	0
Gambel Sparrow	2	0	0
Total	5	7	1

There are lots of birds in the Canyon this month. The Gambel Sparrows are back and, though the Scaled Quail haven't been around the house, they are numerous up the Canyon. The return shrike that was trapped this month was one banded in June, here at Chaco. He killed and partly ate an English Sparrow before I got him out of the trap.

During Mr. King's visit here at the monument, he fixed bird traps and gave us advice on bait, etc., I appreciated his help and hope to send in a better report next month, as a result of his assistance.

*****SL*****

TUMACACORI TALES

By Louis Caywood

Trees of this region occasionally get their seasons mixed. Last year the large mesquite tree in the cemetery next to the mortuary broke into bloom in October. This year a palo verde and an ocotillo are blooming.

On a trip into the Tumacacori Mountains recently, four small coveys of Hearn's or "fool" quail were seen by the custodian. They were all very tame allowing me to approach within two or three feet of them. Then, with a whirring of wings like an airplane motor, they were off. Their coloring is so much like their surroundings that they rely on staying perfectly still for protection.

*****SM*****

I have never seen so many birds at the monument as there are now. There seem to be several new species that were never here before as I do not remember seeing them. A pair of Grey Jays are getting rather tame, and I often see them at camp after a meal. The other night some campers left a pound of butter and some bread on the table, but a little fox had it all eaten before morning. Then I had to provide them with both bread and butter for their breakfast.

*****SWI*****

HEADQUARTERS HAPPENINGS

Fruits of the Night-blooming Cereus plants (Senicereus greggii), which flowered the night of July 5, matured during October. The small black seeds were sought by some bird or mammal which cut through the fleshy pods to scoop out the pulp and seeds as soon as the fruits began to ripen.

Ant hills about headquarters are conspicuous with rings of discarded saltbush seed scales which surround them. The ants apparently carry the seeds down into their underground chambers where the hulls are removed. These are then taken above ground and discarded about the base of the mound.

Little one-eye, the Cactus Wren, is occasionally seen about the buildings. He was recently observed hard at work among the fins of the radiator of a visitor's automobile trying to extract the body of an insect.

On November 4, CCC enrollee Scholz saw a large hawk swoop down on a mourning dove which was perched on the branch of a mesquite tree. The hawk struck the dove with considerable force and carried it off in its talons. From Scholz's description, the big bird was apparently one of the many Harris Hawks frequently seen cruising about the monument.

CACTI AT ORGAN PIPE

On a recent trip to Organ Pipe Cactus National Monument, the Boss and Hugh saw several plants of the Old Man Cactus of "Senita" (Lophocereus schottii). Among the very rare cacti of the United States, numbers of this species have been heavily depleted by collectors who have sold them to cactus gardeners. It is hoped that sufficient numbers still remain in the monument to enable the species to increase and spread thereby enhancing the value of the area as a cactus preserve.

*****SWI*****

RANDOM PAPERS

WHY BAND BIRDS?

By John H. Dodge, junior partner, Bird
Southwestern Monuments Headquarters

Although marking individual birds in an effort to obtain accurate knowledge regarding their habits and movements was carried on in Europe centuries ago and in this country by Audubon as early as 1838, it was not until 1920 that the United States Government officially began the promotion of a nation-wide campaign of bird banding. In that year, the Department of Agriculture, through the Bureau of Biological Survey, undertook a serious scientific study of American bird life thereby placing the stamp of official recognition upon the major importance of birds to the economic welfare of our country. At the present time, this program in North America is actively supported by more than 2,000 licensed banding station operators in the United States and by the cooperation of the National Parks Branch of the Canadian Government* (5). Information obtained from this work during the following 18 years has brought about major changes in our government's conservation policies, particularly in relation to migratory waterfowl, and has already restored hope to conservationists and sportsmen in the ultimate success of scientific wildlife management as applied to migratory game birds.

BIRD BANDING IN THE SOUTHWESTERN MONUMENTS

Early in 1935, a program of bird banding at Southwestern Monuments headquarters was inaugurated by Louis Caywood and Dale King of the Branch of Research and Education under permit from the Biological Survey. During the three and one half years that have elapsed, 1,330 birds have been banded and 148 returns and one recovery recorded at this station. In addition, the interest aroused in this project has inspired the establishment of banding stations at eight additional units of the Southwestern Monuments group resulting in the banding of 4,569* (7) birds up to July 1,

* See numbered references at end of this article

WHY BAND BIRDS? (CONT.)

1938. Much of the success of this program has been due to the cooperation of Lyndon L. Hargrave of the Museum of Northern Arizona, Park Naturalist Edwin D. McFee of Grand Canyon National Park, and John T. East of Nogales, Arizona. An outstanding feature of the work is that it has been conducted, in the main, as a hobby on the personal time of the operators of the various sub-stations, although all records are considered as official property of the Southwestern Monuments and are thereby available for public use.

With respect to the relationship between the Southwestern Monuments banding work and the national project, in "Bird Banding Notes", the official report of the Biological Survey, for 1938, only four other banding stations in Arizona were listed and only one additional banding station in New Mexico. Eight species of birds are handled by practically no other banders, numbers listed being as follows:

<u>Species</u>	<u>1938</u>	<u>Banded in U.S.</u>	<u>Banded by S.W.M. Personnel</u>
Flycatcher, Arizona Crested.	5	5	3
Phoebe, Say.	35	35	18
Pyrrhuloxia.	38	38	10
Thrasher, Crissal.	5*	5*	10
Towhee, Green-tailed	27	27	11
Woodpecker, Gila	13	13	3
Wren, Cactus	45	45	16
Wren, Rock	5	5	3

*Apparently an error in the records as nine Crissal Thrashers were banded at headquarters and one at Tumacacori in the fiscal year, 1938.

HEADQUARTERS STATION PROGRAM ESTABLISHED

As with the majority of research projects, bird banding at Headquarters has gone through two stages and is now entering a third. First came the rather hit-and-miss program of generalized banding with no particular objects in view other than the acquiring of knowledge by the operators regarding species identity, relative abundance, and effect, if any, of weather upon bird movement. Next the fact became apparent that the location of the station provided an opportunity for the specialized study of particular species which were abundant upon the Casa Grande National Monument where headquarters are located. Several of these species are migratory, others year around residents. Sufficient data has now been accumulated to permit a statement of specific problems dealing with definite species. Each problem has a practical solution application of either an economic or educational value which, it is believed, justifies the carrying out of a banding program. Based upon these three and one half years of preliminary work, the Headquarters Branch of Research and Information feels that it is now in a position to attempt the solution of definite and practical problems relating to bird life on the Casa Grande National Monument.

Before entering upon a discussion of local problems, the administrative aspects of a bird banding projects should be considered. Although not generally recognized, one of the primary functions of the Headquarters Naturalist Office is to administer a unified program of research and informational service throughout the 26 stations under its jurisdiction. Bird banding, as any other project undertaken by field personnel, cannot be carried on in a haphazard and happy-go-lucky manner but must be systematized and unified. Not only is this of utmost importance to assure complete and accurate records regularly submitted to headquarters, but with the continual shifting of personnel from one station to another, is essential to smooth operation. Obviously, a man transferred from one monument to another must find exactly the same system of banding records in operation at his new station. After all, Southwestern Monuments is a National Park unit with 26 ranger stations all responsible to the same headquarters. It differs from other Park units mainly in the greater number of dependent stations and the extreme distances that must be travelled in reaching or communicating with them. The three and one half years of bird banding experience at headquarters has served to develop a thoroughly planned and effective system of record keeping and has also established the same system at nearly all of the monuments where banding stations have been started since that time. In addition, operation of the headquarters station has rendered the naturalist staff thoroughly familiar with procedure connected with bird banding. This familiarity has proved of utmost value in field work men with newly established stations. It has also proved the wisdom of basing Headquarters at one of the monuments where actual field conditions are present. If bird banding is to be carried on at all from the field stations, the value of actual experience to the Headquarters Naturalist Staff should be of sufficient importance to justify continuation of bird banding at Headquarters.

OBJECTIVES OF BIRD BANDING IN SOUTHWESTERN MONUMENTS

Much of the effectiveness of the international program of bird banding sponsored by the Biological Survey is based on the activities of the 2,000 permittees operating banding stations throughout the United States. Each station not only contributes its part to the mass of data accumulated and filed at the Washington offices of the Survey, but its individual records may suddenly become of great value in the solution of some unexpected problem. Just as no individual weather-recording station makes or breaks the Department of Agriculture's weather forecasting program, the reports of each help to build the nation-wide and ocean-wide weather maps which are of utmost importance to modern commerce. Thus through the bird-banding reports gathered from cooperating banding stations in all portions of our nation, the men of the Bureau of Biological Survey are able to keep their fingers on the pulse of bird life in our land. Perhaps an epidemic of grasshoppers, such as devastated the farmlands at the eastern foot of the Rocky Mountains during the summer of 1937 causing millions of dollars loss to farmers, may be traced to the absence of the normal multitudes of

WHY BAND BIRDS? (CONT.)

insectivorous birds in the locality during the grasshopper egg-depositing period the previous year. A repetition of the absence of birds would lead the Biological Survey to prophesy another epidemic of heppers and to take steps to fight them.

NATION'S PROBLEMS ARE STATION'S PROBLEMS

In cooperating with the Biological Survey, the problems of the delicate adjustment of wildlife to civilization become individual problems of the stations. Diseases and parasites affecting birds may assume epidemic proportions and no man be the wiser, but the bird bander who is keenly attuned to fluctuations in the abundance or scarcity of members of the various species in his territory soon discovers that something is wrong. Specimens of dead or ill birds sent to the Biological Survey soon establish the nature and importance of the situation and necessary action may be taken to meet it. In matters of this sort, the truth of the old adage that "an ounce of prevention is worth a pound of cure" is effectively displayed. Epidemics that wipe out populations of weed seed-eating or insectivorous birds are bound to be felt by farmers the following seasons. Southwestern Monuments is proud to contribute its bit, however small, to a program of such vast economic importance as that maintained by the Biological Survey.

EACH STATION HAS ITS OWN LOCAL PROBLEMS

In addition to contributing to the data amassed by the Biological Survey, each banding station is in a position to solve local problems related to bird life. In archeological monuments, a peculiar problem exists which is well illustrated by Dr. Donald Brand(10). In the excavations of Tseh So, a small house ruin in Chaco Canyon National Monument, New Mexico, all animal bones were carefully saved and later identified. Comparison of the species inhabiting the region today is, among other factors, an index to any changes in climatic conditions which may have taken place in the interim. In commenting upon his efforts at comparison, Dr. Brand states, (page 47) "The fauna of the Chaco Canyon area has been almost totally neglected by zoologists". Had bird banding been carried on at Chaco Canyon National Monument prior to the excavation of Tseh So and a check list of birds of the area been developed, the archeologists would have been provided with at least a knowledge of the avifauna of the area for comparison with that of the prehistoric period as revealed by their studies of bird bones found in the ruins.

As previously stated, several years of bird study is usually necessary before a sufficiently clear picture of bird activity in any area can be obtained to permit an understanding of the local problems. Headquarters station because of earliest establishment, is in the best position to begin work on specific problems. An outline of these will be given here as an example of what may be undertaken through bird banding at a single station.

WHY BAND BIRDS? (CONT.)

INDIVIDUAL CONDITIONS AT HEADQUARTERS STATION

To understand the problems peculiar to Headquarters, a brief description of station surroundings is necessary. The headquarters buildings are located near the southwestern corner of Casa Grande National Monument near Coolidge, Arizona. This monument which is practically square, consists of 472½ acres of nearly level creosote bush - salt bush - mesquite desert near the center of the Gila River Valley. An important feature of the area is that it is surrounded by cultivated lands thereby forming a natural desert island in a sea of irrigated farm lands. Although so small that the natural bird life is undoubtedly influenced by the surroundings, it also encourages a concentration of the species that naturally seek the creosote-salt-mesquite association. This plant combination is one of several characteristic of the Lower Sonoran desert, hence forms a valuable location for a bird banding station.

Because of its small size and peculiar surroundings, Casa Grande National Monument offers a remarkable opportunity for bird study. If the full time of one man were available for several years, there is no doubt that interesting and valuable information could be obtained. By dividing the area into squares with sides 100 yards long and placing a bird trap at each corner of every square, a complete coverage of the monument could be obtained. Thus a very accurate study of the area could be made and the concentration of birds in different types of cover and the penetration of birds associated with cultivated lands outside of the monument and many other valuable facts governing bird activity ascertained. A graduate ornithologist looking about for a problem upon which to base his thesis, bird study on Casa Grande National Monument should offer a most attractive prospect. Such a student would be most cordially received by Headquarters naturalists.

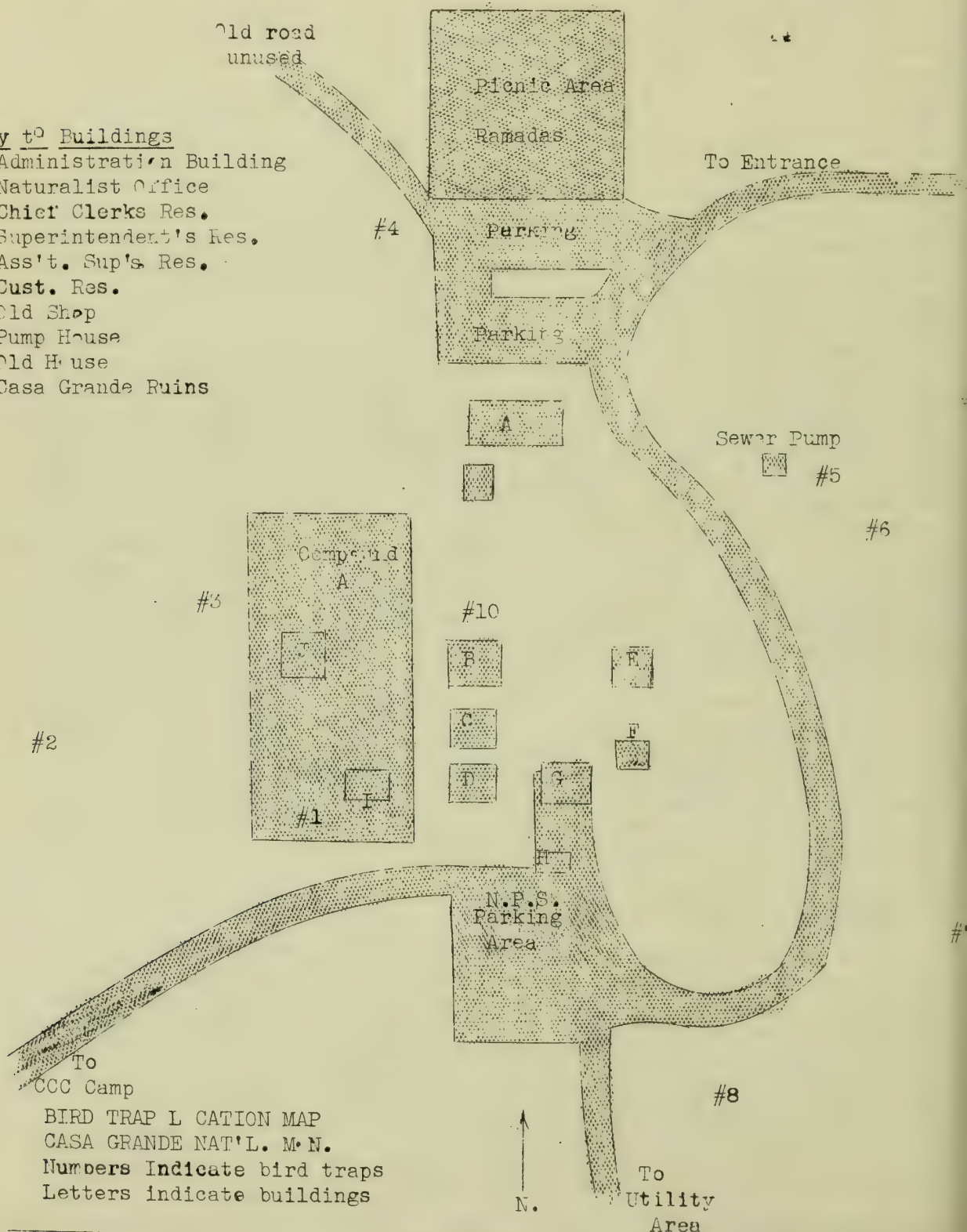
Since no personnel is available to conduct a thorough study of the birds that frequent Casa Grande National Monument, the Headquarters naturalist staff has established a number of trap sites sufficiently near the office to enable visits to the traps during off hours, and through the services of a CCC enrollee during work time. The accompanying map shows the position of these trap sites, by number, in relation to the location of Headquarters and Casa Grande Buildings.

PROBLEMS TO BE SOLVED AT HEADQUARTERS

The primary purpose of establishing a bird banding station at Headquarters was to familiarize the naturalists with the species of birds present on the monument. Through the bird banding program, observational activities, and the collecting work of Adrey Borell and G.G. Philp, a rather complete check list (70 species recorded to date) of the local birds has been developed and members of the naturalist staff are familiar with the majority of species frequenting the monument. The weakness of the program lies in the fact that, this being an archeological monument, contact personnel is primarily interested in explaining the archeological features, and the biological phases suffer in consequence. At monuments

Key to Buildings

- A-Administration Building
- B-Naturalist Office
- C-Chief Clerks Res.
- D-Superintendent's Res.
- E-Ass't. Sup's Res.
- F-Cust. Res.
- G-Old Shop
- H-Pump House
- I-Old House
- J-Casa Grande Ruins



BIRD TRAP LOCATION MAP
CASA GRANDE NAT'L. M.N.
Numbers indicate bird traps
Letters indicate buildings

WY BAND BIRDS? (CONT.)

where the contact personnel operates the bird banding station, enthusiasm in the work naturally finds expression in stimulating visitor interest.

A second purpose in bird banding is to amplify observational records.

A rather complete observational record file has been kept at headquarters for a number of years, but observational records show that Gambel Sparrows (Zonotrichia leucophrys gambeli) on southward migration arrive at Casa Grande National Monument about the second week in October. It requires individuals identified by bands to determine whether these first arrivals from the summer nesting locations are passing through or whether they are previous residents returning to their permanent winter feeding ground. Only marked individuals divulge the fact that a Gambel Sparrow not only returns to its former wintering location but that, in the majority of cases, it settles down on the same site as the previous winter with a range limited to a few thousand square yards.

Observational records amplified by knowledge obtained from bird banding has provided the naturalist staff with considerable information regarding local bird activities. This information, of course, is at the disposal of visitors to the monument and of scientific and educational institutions. Primarily set up as an information dispensing organization, the naturalist division is gratified to have information available. Occasionally it receives inquiries which it is unable to answer. During the summer of 1938, an officer of the Biological Survey made a survey of the Gila and Salt River Valleys to determine the nesting status of Western White-winged Doves (Columba asiatica nearnsi). With him was a representative of the Arizona Game and Fish Commission. The men were obtaining data upon which to base the dates and length of open hunting season on white wings, and were quite disappointed at the lack of information available at Southwestern Monuments Headquarters. On another occasion, a request was received from a member of a local game protective association regarding the relative weights of immature and adult Gambel Quail (Lophortyx gambeli gambeli). In this also the naturalists were unable to give accurate data.

On Casa Grande National Monument, a very fine opportunity is afforded for a careful study of Gambel Quail. Three coveys totaling about 100 to 150 individuals inhabit the area finding there all factors necessary for year around residence. Although careful observation records have been kept, amplified by banding and color banding, no concentrated study of this species has been conducted at Casa Grande. As the chief game bird of Southern Arizona, the Gambel Quail is in need of careful study to augment the splendid work of Gossard⁽⁸⁾. Much could be learned at Casa Grande about the habits and activities of this species which would be of great value in the formation of conservation policies. One of the major problems awaiting solution by headquarters bird banding is that of the potential capacity of Casa Grande National Monument as a quail reservoir the overflow from which is available for sportsmen of the community.

On page 430 of this Supplement, reference is made to termites which have attacked a mesquit tree on the monument. Observations over a period of years indicate that Gila Woodpeckers (Centurus uropygialis) leave the

WHY BAND BIRDS?

monument in May and do not return until September. Inasmuch as this species is numerous on the open desert during the summer months carrying on their nesting activities among the giant Saguaro cacti, it has been assumed that the absence of Saguaros on the monument and in the cultivated areas in its vicinity may have much to do with the absence from the monument of woodpeckers and flickers (Colaptes cafer collaris) throughout the summer, a period when insect activity is at its height. Might the re-establishment on the monument of a number of mature Saguaros, thereby providing nesting sites for woodpeckers and flickers, offer a partial solution to the serious problem of the dying of mesquite trees on Casa Grande National Monument?

Another problem relating to the mesquites of Casa Grande might be attacked through accurate knowledge regarding bird activities. The monument trees are heavily infested with mistletoe (Lorodendron californicum) which, although there is some question as to its fatal effect upon the trees, undoubtedly weakens them. During the winter months, numbers of phainopeplas (Phainopepla nitens lepida) are active on the monument feeding upon the fruits of the parasite. Are the phainopeplas beneficial through their activities of consuming thousands of mistletoe fruits, or do they spread the infection as is at present believed?(9)

For 30 years or more, Great Horned Owls (Bubo virginianus pallescens) have inhabited the Casa Grande ruins. Perched on the rafters supporting the roof protecting the ruins, the large birds arouse a great deal of interest among visitors who ask innumerable questions about them. Each spring the female broods her eggs in a crude nest atop the ruin wall and, in the majority of years, two to four young are reared. In early summer the parent birds leave the ruin while the young remain throughout the summer deserting their home about the time the adults return in September. Where do the adults go in summer, and is it the same pair that returns each fall? What becomes of the young? Are we sure that the statements just made and based upon observation records are the facts in the case? Only by a careful study founded on banding records will the naturalist staff be able to answer the many questions that visitors ask about the owls. How are the contact men of Casa Grande answering these questions now; guessing, or saying, "I don't know"?

Large birds of the hawk and owl group are still considered by many people as enemies of the farmer, raiding his poultry yards and hen roosts. Pellets (regurgitated material) have been collected beneath the owl perches at the Casa Grande and sent to the Biological Survey laboratories for analysis. In all cases the reports show that the Casa Grande owls subsist on small local rodents, particularly rabbits, and mice. The naturalist staff feels safe in saying that the Casa Grande owls are an aid rather than an enemy to local farmers, but pellets must be collected consistently over a period of time to definitely prove the statement.

Another opportunity for bird study, the results of which might have considerable economic value, is provided by the hordes of Western Mourning Doves (Zenaidura macroura macroura) which inhabit the monument. These game birds, which are widely hunted throughout the western United States,

WHY BAND BIRDS? (CONT.)

are especially numerous on Casa Grande National Monument during the winter months, while some remain to rear their broods during the summer. Studies by the Biological Survey in relation to waterfowl have spotlighted the value of knowledge regarding resting and wintering grounds of these migrants. It is logical to assume that the same value pertains to knowledge of winter activities, food, and habits of other migratory game birds. A few migratory birds winter within the United States that such areas as south Arizona, which are wintering grounds for many species, are of especial value for winter studies. Another problem in relation to mourning doves is the excessively high mortality rate of nestlings which was very apparent during the summer of 1938 on Casa Grande National Monument.

All national parks and monuments are preserves from which exotics, both plant and animal, are excluded by law. Surrounded as it is by highly developed agricultural lands, the encroachment of exotic plants upon the Casa Grande National Monument offers something of a hazard. Fortunately, the majority of such plants require such a moisture that nature provides in southern Arizona so that natural land conditions of the monument probably act as an effective barrier. Although many angles of this problem remain to be considered, there seems a decided possibility that Casa Grande National Monument offers opportunity for study in regard to the dissemination of plants by birds.

Although presenting no practical economic problems now recognized as such, House Finches (Carpodacus mexicanus frontalis), Gambel Sparrows (Zonotrichia leucophrys gambeli), and Cactus Wrens (Salicivora brunnei-capillus) all offer interesting possibilities for exhaustive study based upon bird banding at Headquarters. The first two are migrants while the last is a resident species. Very little information on these birds is available in ornithological literature as almost no scientific work has been done on them. In fact, incomplete as it is, the mass of information accumulated by headquarters bird banders during the past three and one half years apparently constitutes the most comprehensive study of Gambel Sparrows yet attempted by anyone. With the paper being compiled by John E. Fast, the record of Gambel Sparrows comprises the major project of the headquarters bird banding program to date. Other valuable contributions of headquarters bird study, as previously mentioned in this discussion, have to do with food habits of horned owls, knowledge of local birds and of bird banding procedure acquired by the members of the naturalist staff, and a recognition of specific economic problems which continued bird banding activities on Casa Grande National Monument should help to solve.

WEAKNESSES OF HEADQUARTERS BIRD BANDING PROGRAM

Unless the cooperation of some scientific or educational institution provides adequate personnel to carry on a thorough bird banding program at Casa Grande National Monument, headquarters activities along these lines must of necessity be limited by the small amount of time available. So many other matters of much greater importance require the attention of the naturalist staff that bird banding must be considered as a spare time

WHY BAND BIRDS? (CONT.)

project. From the information value standpoint, assumption of the banding responsibility by the Headquarters naturalists has tended to divert the interest of the monument's contact personnel. Although all of the material accumulated is on file in the naturalist office, it is receiving scant attention from the public visiting Casa Grande National Monument. Were it possible for some of the time of the Casa Grande contact men to be made available for cooperating in the bird banding project, considerable more headway could be made and at the same time the Casa Grande personnel would be stimulated through growing interest and knowledge in the work and they would be in a much better position to answer questions about birds of their monument put to them by visitors. Thus the two major weakness of the headquarters bird banding project might be partially overcome by the same procedure.

SUMMARY

During the three and one half years that a bird banding program on Casa Grande National Monument has been carried on by the naturalist staff, some rather interesting and worth while facts have been brought to light. Most valuable of these have been data obtained on Gambel Quail, Gambel Sparrows, and Great Horned Owls. Light has been thrown on several problems which are believed worthy of attack, and much practical information regarding local birds and bird banding procedure has been obtained. This has proved of considerable administrative value in instructing field men who have established bird banding stations at their respective monuments. Several suggested improvements of the system in effect have been devised, among which the proposal that Casa Grande personnel cooperate actively in the program appears most practicable. En toto, the Headquarters naturalist staff feel that the program of bird banding has been reasonably successful and that the mass of accumulated data is of value only so far as additional material may be added as time goes on. Because of the proven worth of the program and because of the recognition of definite problems whose solution should prove of economic, scientific, and educational value, it is felt that a continuation of this bird banding program is fully justifiable even at the expense of a small amount of official government time.

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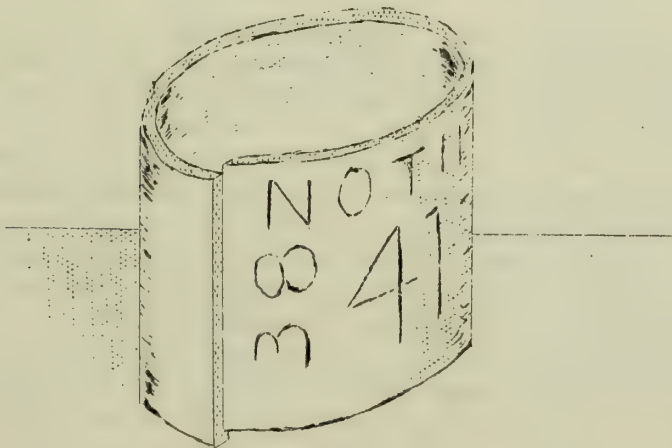
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*****S.W.I*****



LONG AFTER AUDUBON

By Cornelia Otis Skinner
From The "New Yorker", by permission of the Editors.

Note: The following article is reprinted from the "New Yorker" at the request of Park Ranger David Jones -- Ed.

I am the victim of intermittent attacks of ambition to patch up a faulty education. My ardor seldom lasts beyond the stage of purchasing a number of books on the passing enthusiasm, glancing over their contents, then putting them away with a vague promise to my inner man (who must be a complete sissy) someday to tackle the subject in earnest. The latest spell of intellectual thirst started when a friend who was sitting on my porch suddenly exclaimed, "My, I never realized you had pipits!"

It is definitely disturbing all at once to be told you have pipits. For an uncomfortable moment I wondered if I had suddenly broken out in a rash, but my friend's next remark--"Hear him? He's in that bush"--brought the realization that her excitement was all about a bird.

"Oh yes," I said. "We have flocks of them." If she was going to show off, I could too.

"But they don't go in flocks!" My friend can be terribly annoying.

"They do here," I said, then added lamely, "This is a sort of bird sanctuary."

"How fascinating!" she cooed (people who go in for fowls of the air after a while begin to sound like them)

"Just what species do you get?"

If she had pointed her finger at me and yelled "Bird--one, two, three, four, five, six, seven, eight!" I couldn't have felt more panic-stricken. "Well, robins," I said, but apparently this didn't satisfy her, so I went on. "Also sea gulls and hummingbirds and an occasional eagle. And now how about an Old-Fashioned?"

My friend departed in haste, but she had succeeded in infecting me. The season of migration was beginning and the study of ornithology seemed not only imperative but rather becoming, so I rushed to my bookshelves to look for a bird book. The only one I could find lurked in a section of childhood leftovers between a trot for Cicero and "The Automobile Girls in the Berkshires." It was a limp-leather number, about the size of a short-hand pad, and bore on the flyleaf my signature and some cryptic initials in arrow-pierced hearts. For further ornamentation "Yale rah-rah!" was scrawled in blue pencil, and below that, doubtless because the other end of the pencil was red, was a restrained "Harvard, rah!"

This booklet, which has one of those mortifying titles like "First Steps in Bird Lore," lists some fifty varieties of our winged neighbors. The illustrations, reproduced by an antiquated process of lithography in which the colors fail signally to get together, look a good deal like decalcomanias that have skidded. The head of the goldfinch is dun-colored, surrounded by a tender halo; the purple of the grosbeak's bill looks like

a plum he's about to devour; and the scarlet dab that should distinguish the red-winged blackbird might be an overmanding traffic light. As a further drawback, a number of pages were ripped loose in, presumably, some forgetful fit of rage and now flutter in all directions whenever the volume is opened.

This little manual seemed hardly adequate, so I consulted my bookseller, who assured me he had just what I needed. What I needed turned out to be a volume which has the general dimensions of the Manhattan telephone book and the weight of an arvil. It can't possibly be handled casually--propped against the toaster at breakfast or supported by your stomach in bed. What it really requires is a pulpit or a bronze lectern. Once or twice, in scientific fervor, I lugged it outdoors only to find that after I had manipulated its massive pages and dropped it in a series of dull crashes, my feathered friends made hysterically for the next county.

The only way to look up a bird is to go and stare at it until your eyes get out of focus, then rush indoors plotting it over and over to yourself and try to find something in the book that remotely resembles it. The chances are that after you think you've made your mind up and are feeling pretty smug about it, the thing listed in the book turns out to be an inhabitant of Arizona or Sanitona. What it's doing on Long Island only God and Audubon know.

The technique of looking up birds must be as specialized and esoteric as that of understanding hallmarks on silver. To begin with, you have to memorize in a flash, and if you think memorizing a bird is easy you'd better consult a psychiatrist. What's more, birds are utterly devoid of any spirit of cooperation and refuse to stand still and be memorized. Then, in looking up a bird, you have to guess what category he belongs in and to decide whether he's a warbler, a flycatcher, a marsh dweller, or a totipalmate swimmer. If you can do all that, you probably know what the bird is anyway. How is the novice to tell? Warblers aren't always warbling, flycatchers are seldom catching flies, marsh dwellers may be a long way from home, and as for those other things, I don't even let myself think what they might be up to.

There is an exasperating creature I've been trying for weeks to identify, and it looks as if, in order to make any headway with him, I'll have to follow him south. All I can determine is that he (or possibly she--heaven knows I'm not that far!) is smallish and of a color you call olive only because it isn't any color at all. He flits about in thick foliage and his note resembles the squeak of a shoe. The chances are he's either a red-eyed vireo, a pine siskin (immature), or a Spizella passerina passerina (the double name, like Corona Corona, doubtless indicates a superior variety). The detailed descriptions are absorbing but don't get you anywhere. One of the above species, for instance, is distinguished by a marking "dull whitish on the lower eyelids." All I can say is any bird which will keep still long enough to let you investigate its lower eyelid is too silly to bother with.

Another means of identification is the detailed description of song. This is howild ring. The written equivalent of musical expression may be quite clear to the expert, but to the novice who can recognize only the more

LONG ISLAND AUDUBON (CONT.)

obvious notes, such as those of the crow and the bobwhite, it's hardly adequate. We are told, for instance, that one little codger is easily discovered by his cheery "tra-ree-rah, ree-rah-ree," another goes "Dzwec, dzwec, dzwetsee," and yet another says "Chink" while flying and "Chunk" when feeding, which seems fair enough. The sorts that go in for catch-words like "Lat, Potter, cat" or "Sow what, Peverly, Peverly" I find difficult, owing either to my lack of perception or to the faulty diction of the Long Island varieties.

Anyway, even the best authorities disagree about birdcalls. In the case of olive-sided flycatcher, Thoreau thinks it says "Till, till, till," while someone else describes the sound as "lip-pai-shoo," and a gold miner claims it's "Three cheers" (this may have been on a Saturday night). I am constantly hearing a call that sounds shockingly like "bitch-it-up, bitch-it-up, bitch-it-up," but I don't find this listed. Instead, I learn that the song of the white-throated sparrow can best be approximated if "played with a very excited effect on the L-string of a fine violin." I don't know Weifetz well enough to ask him to do this for me. One amazing outburst of gladness is the voice of the yellow-crowned chat, which goes (and I'm not making this up) "Crr-rwhrr-that's it, chee, quack, cluck-yet, yet-now, hit it, er-r-ranen, caw, caw-cut, tee-boy, who-who-now-now." The book doesn't state whether or not at the end of all this the chat falls in a dead faint.

A further handicap is the number of fascinating distractions that lure you far afield from what you're looking up. Start searching for some ordinary local variety of sparrow and on the way you'll come across such fabulous creatures as the tufted puffin, the ancient murrelet, and something that apparently doesn't get a break, being known as a least auklet. These last congregate in the Bering Strait, where "they are very playful and chase each other in great good will." Well, well! Oh yes, another item of valuable information is that they feed on sea fleas. Then there is something Lewis Carroll might have invented, called an oyster catcher, and besides the whippoorwill there seems to be a poorwill, both of which come under the distressing heading of "goatsucker."

If only the people who write about birds were not so blessed with the keep-smiling spirit! Somehow, to learn that the nuthatch is the "small boy of the feathered world," or that the chipping sparrow is a "contented, modest little bird who tries hard to believe in the goodness of human nature even though he meets with but little encouragement," puts one off ornithology. Maybe, though, that's just an excuse for solving my latest intellectual quest in my usual fashion. As a matter of fact, I have recently read an interesting article on Sumerian art.

STI

GEOLOGICAL REPORT ON CAPULIN MOUNTAIN

By C. M. Gould
Regional Geologist, Santa Fe, N.M.

In my first report on Capulin Mountain National Monument, prepared from an inspection made August 28, 1936, I presented rather fully the essential geological data of the monument. Other geological reports have been prepared by Wegemann* and Vandiver. To these reference is made.

On July 30 and 31, 1937, I again visited Capulin Mountain and made three round trips over the two-mile road to the parking area usually spoken of as the Turn Around. The particular object of this inspection was to study conditions along the road which encircles the mountain.

Capulin Mountain, 5215 feet above sea level and 1,500 feet above the plain, is a very fine example of a cinder cone. The materials ejected from the volcano at the time of its eruption were chiefly ashes, cinders, and fragments of other dry or non-molten material. In this respect, Capulin differs from Sierra Grande, Mt. Dora, and most other extinct volcanic peaks in this part of New Mexico which are lava cones. The latter were formed of hot, molten lava which flowed down the slopes in streams much like the volcanoes of Hawaii today. This molten lava, on cooling, forms a hard, black rock, known as basalt, such as now appears on Sierra Grande, and the numerous mesas, large and small, in this region.

There is a relatively small amount of hard basalt on Capulin, but the greater part of the rock is loose, unconsolidated ash and cinder material. The prevailing colors of this rock are black and red, with smaller amounts of yellow, brown, green, and buff.

This relatively loose ashy material tends to roll downhill. The forces of gravity are constantly at work and the profile of the mountain has assumed the angle of repose, which is between 25 and 30 degrees from the horizontal. This is much the same as a pile of ashes or sand, and much steeper than that of Sierra Grande and other volcanoes formed of hot molten lava.

A two-mile road with a six percent grade spirals up the mountain ending in the Turn Around at the lowest point of the crater rim, where cars are parked. From this point a trail one mile long circles the rim of the crater. Another trail leads into the crater.

When the road was dug out of the side of the mountain, the angle of repose established by gravity was disturbed, and Nature is now at work restoring the original slope. Fragments of rock break loose and roll down the mountain side, and loose cinders slide down and come to rest in the road. Under usual conditions this can be taken care of by the ordinary horse-drawn road grader, augmented with pick and shovel work. The road is usually kept in first-class shape.

* The Supplement, February 1936, pps. 122-3.

GEOLOGICAL REPORT ON CAPULIN MOUNTAIN (CONT.)

During the past few months there have been unusually heavy rains on Capulin Mountain. On July 27, a rain occurred which caused considerable material from the upper slope to slide into the road, and also washed small gullies in the lower bank. The road has remained passable, however, and scores of cars make the trip daily. Custodian Farr estimates that two weeks time will be necessary, with two men and a team, to put the road in good shape. He plans to start on the work at once if funds are available.

The matter of a proper treatment of the slides on this road has been discussed several times. It is generally agreed that the best solution is a retaining wall along the upper side of the road for a considerable part of the distance. I was told by Custodian Farr that Engineer Clark and Geologist Vandiver, who recently spent some time on the monument, recommended that 4,000 feet of wall be constructed to a height of four to six feet. The theory is that such a wall will catch the sliding debris and tend to restore the angle of repose.

I understand that an allotment of \$20,000 has been requested for the construction of such a wall. Doubtless this amount of money, if available, could be profitably expended on the Capulin road, and if this amount of work can be done, it would have my concurrence. However, I believe that a much smaller sum will be sufficient for present needs.

It is my judgment that \$1,000 spent in constructing walls and drainage at critical points will solve the present problem. There will, of course, be a constant maintenance required, but Custodian Farr understands the situation and can be depended upon to keep the road in shape. If, at a later date, a larger sum of money is available, it can be profitably employed.

Capulin is becoming increasingly popular. Its location on the main highway from Texas to Colorado renders it easily accessible to the tourist. Scores of cars drive two miles uphill, to the Turn Around daily. From this point many persons make the rim trail hike of one mile, circling the crater. A magnificent view is seen from this trail. Other persons descend 250 feet to the bottom of the crater. The best estimate made by Custodian Farr is that 24,000 people visited the monument last year. (30,200 visitors in travel year 1938 - Ed.)

(The original of this report, with illustrations, is available at the Southwestern Monument Loan Library, Coolidge, Arizona -- Ed.)



RUMINATIONS AND REVERBERATIONS

RUMINATIONS

By The Boss

On Being Wrong

Once in a while, here in the office, the argument comes up as to whether or not anyone ever reads our monthly report. We don't mean from cover to cover for, in part, we make use of the report to simply file some statistics and other matter which we want to keep handy for months or years; but we mean in general, do people read the report? Well, I discovered a method of finding out.

Just write something in it which isn't true and, before you think the report has a chance to cross two states in the mail, you will begin getting corrections! I know because I have done it. Just a couple of months ago I wrote something about the possibility of burning the top off a couple of mountains in the Saguaro National Monument which intimated that we didn't have enough funds to add a shotgun to the nothing of protecting that forest. "Boy on a wagon," as Dick Trinsby used to say. Did I get an answer? First the Regional Head, then a technician up there, then Johnnie Coffman's boys, and so on up the line. All calling attention to the fact that we had some funds over in the F.F.V. appropriation, and what for were we talking about being broke?

What's more, it was a fact! I was dead wrong, which in itself is not such a surprising thing, for I often find myself on the wrong side of an argument when the evidence is all in, and do an about face and try to look as if I had been on the right side all the time, just like any other dub; you know how it is. The thing that struck me hardest about all this was that we could possibly have several hundred dollars that I could forget about. That is a far cry indeed from the old days of vest pocket appropriations when we knew to a split nickel at all times how much money we had, and knew that only a miracle could get us through the fiscal year on it. Since then appropriations and bookkeeping have become much more complex and it keeps a man on his toes to keep up with his various allotments.

My apologies to the boys and I hope this will set the record straight.

On Plans

I hope Doc. doesn't find out I broke training on him last night and sat up until about eleven o'clock in a little six-handed argument on Public Works plans; he might not like it.

Anyway, it was a great session and some of it has been running through my mind today, straws showing where the wind lies, you might say.

There was, for instance, that fine argument we had about how much glass to use in a house.

The southwestern Indian, after about a thousand years of experimentation, settled on a little window and a fair sized door in his room and thus got his ventilation by leaving both open, and got enough light to do the

REFLECTIONS & REVERBERATIONS (CONT.)

eye work he had to do inside the house.

We might warn the newcomer to the Southwest not to go into the Indian's house and cry about its lack of fenestration. If he will stick around until the middle of the next summer, he will be glad to retire from the intense heat and blinding glare of the desert sun to the cool, dark interior of the Indian's house and may then realize that the Indian has hit upon a pretty good solution of one of his problems.

Now comes, in this sheaf of plans, the plan of a house which is to be tucked up under a rock ledge and is going to look out to the northeast on a couple of thousand square miles of special scenery, made by the Lord, Himself, and the colors have never faded.

This plan has the whole side of the living room, which faces in that direction, made of glass. Shall we leave it or ask for a change? Every man around that little table knew that view and loved it. Every man approved the glass wall in an otherwise so-called "Santa Fe" type house. Looking back on it now, from the viewpoint of the cold gray dawn of the morning after, I wonder if we are right?

Ever since I heard some one else say it, I have held that it would be wrong to build a home on the rim of the Grand Canyon; it would become an overpowering view and might warp the spirit or nerves of one who lived with such a view constantly in his eye. The Painted Desert view is almost as big in a different way; so big that I am beginning to doubt the advisability of trying to bring it into the living room and put it in somebody's lap.

Indians, who have lived in the country for more than a thousand years, evolved the method of going out in front of the house to make baskets, stone axes, bone awls; to weave cloth, or just loaf and talk. When they had enough of this, they retired to the house for peace and rest. Maybe we had better save the living room for that purpose too and go out on the terrace, or portal, or porch when we feel the need of the great space and the wonderful colors we know are awaiting us.

Next we went around this house plan and found a whole side of the house which had no view because there was a young cliff in the foreground shutting off the view in that direction; yet here again we had the whole side of the house designed as a wall of glass. In this case, we had two glass-walled bed rooms and a glass-walled bath room!

After the sound and the fury died down, the supporting architect had swapped his transparent glass wall for a translucent glass brick one and was still meeting objections from some of the conservatives who, while they might admit they were handsome fellows, stuck at a glass-walled bath room even though the wall might be only translucent.

On Lay-outs

Another interesting angle was brought up by this group of new plans. It was a belief that we should scatter our development as against the old

REMEDIATIONS & REVERBERATIONS (CONT.)

idea that we should concentrate it.

Remember now, I am a monument man, dyed-in-the-wool, and I cannot look at this problem nor talk of it from a park standpoint; I can only talk of it from the standpoint of the 26 stations we operate.

From our standpoint, then, there is often objection to scattering the development. First; it is not economical of personnel nor of time. If you put your utility area a thousand feet from your administrative building on a one-man station, your man cannot work in peace of mind at the utility area for fear visitors may be coming and going at the administrative area without his knowledge. Yet you don't want him sitting around in his administrative building waiting for visitors who will not come that morning, while there is work waiting for him over at the equipment shed.

If you say you will put the two in sight of each other but still develop them as separate units, my reply is that in many of our sparsely wooded stations, where you cannot hide a goat and much less can you hide a group of houses, the scattered effect of two or three separated houses or groups of houses is not very pleasing to a visitor.

Does this matter of separation of the utilities mark back to the days when a barn close to the house brought too many flies and too much odor? And are we still putting the barn at some distance from the house after the barn has become a garage with neither flies nor odor? Do we tuck utility areas very carefully out of sight because we are ashamed of them? Or are we trying to fool the visitor into believing that we do not use road machinery, trucks and other such equipment?

After all, and this may startle you as much as it did me when I figured it out, a tractor or a power grader is just as beautiful as a blue ribbon bull dog. They are all three power incarnate, they are built on good clean lines and they do superbly the work they were designed to do. Why make so much fuss about hiding them away?

From the philosophical standpoint, what is the objection to grouping the structures at a monument into the fewest groups possible? Why not let the visitor see that we are well equipped in men, machinery, and buildings to take care of his property and then let him forget it all as he enjoys the monument which he came to visit? He doesn't believe the dwarfs or pixies take care of the roads or keep the equipment running, so I can't see why he should be shocked to find that we have all the proper utility, residential, and administrative structures to administer the area.

From the administrative standpoint, I need only point to the Navajo country, where several of these new structures will be erected, and ask you to study the development of the Indian trading post. You don't find the house here, the store a couple of blocks over there, the corrals a quarter of a mile around the corner and so on. You find them all in a pretty compact group, administrative, residential, utility areas, in one general group where the administrators have things under their hand and can handle their duties with the least expenditure of time and labor.

Are we sure we are right to throw this result of a century of evolution over the fence in order to get room to start a scattered type of

RUMINATIONS & REVERBERATIONS (CONT.)

construction which, in a century, did not evolve naturally?

I wonder.

My plea is to the Branch of Plans and Design, and I ask them to remember the poor fellows who will have to live with our mistakes for the next 20 or 30 years. I am aware that too much convenience might lead to an unsightly landscape; please remember, on the other hand that too much landscaping sometimes leads to 20 years of inconvenience. Somewhere in between we may find the proper solution of the problem.

*****S*E*****

REVERBERATIONS

BRANCH OF PLANS AND DESIGN COMMENT:

By Harvey Cornell,
regional landscape architect.

In response to "Ruminations", by The Boss, I wish to offer the following views as my humble contribution toward solving the development problems of Southwestern Monuments.

It is rather a coincidence that I had already made a motion, to be forwarded to The Boss, in which the Branch of Plans and Design was to express its appreciation of the Monthly Reports of Southwestern Monuments. We like the style of these reports and the information they contain.

With respect to the proposed residence for Lupital, the introduction, by the architect, of a rather spacious treatment of glass, reflected a rather commendable up-to-date tendency to "brighten up" the interior of the residence. We are certain the future occupants will appreciate the fact that the design has recognized recent trends toward improved living conditions. In this connection, the architect has stated -- "The general trend in up-to-date (not modern) design is toward greater use of glass and open spaces." However, the completed final plans will, of course, be subject to changes upon further review by Southwestern Monuments.

There was one statement by The Boss in connection with the paragraph on "Layouts" I cannot concur in, namely: "It was a belief that we (Branch of Plans and Design) should scatter our development, as against the old idea that we should concentrate it." It is not the intention of the BOP&D to foster "scattered" development under any circumstances.

The primary factors, as I see it, affecting the layout of buildings within a monument are: 1, Administrative control; 2, Influence of site -- natural character, restriction of area, and; 3, Future expansion beyond definite current needs.

The problem of administrative control must receive first consideration, responsibility for the final decisions to rest with Southwestern Monuments, the number and duties of employees being the principal factor.

With respect to the influence of site, the two sites are identical. Differences in topography, space limitations, and existing vegetation lead to different solutions. At Walnut Canyon the headquarters building occupies the center of the stage. To further dominate the limited site with

BRANCH OF PLANS & DESIGN COMMENT (CONT.)

residence and utility structures would be sacrilege. Therefore, as a compact group the service buildings are slightly detached and effectively screened by existing tree growth.

At Montezuma Castle, the layout is quite similar, the residence and utility area being quite distinctly separate from the headquarters area for obvious reasons. At Tonto, an extremely limited development might permit the compact grouping of all structures. At White Sands, the impressive and rather extensive development is justified as a single group. There is no conflict between the buildings and the "Sands" some distance away.

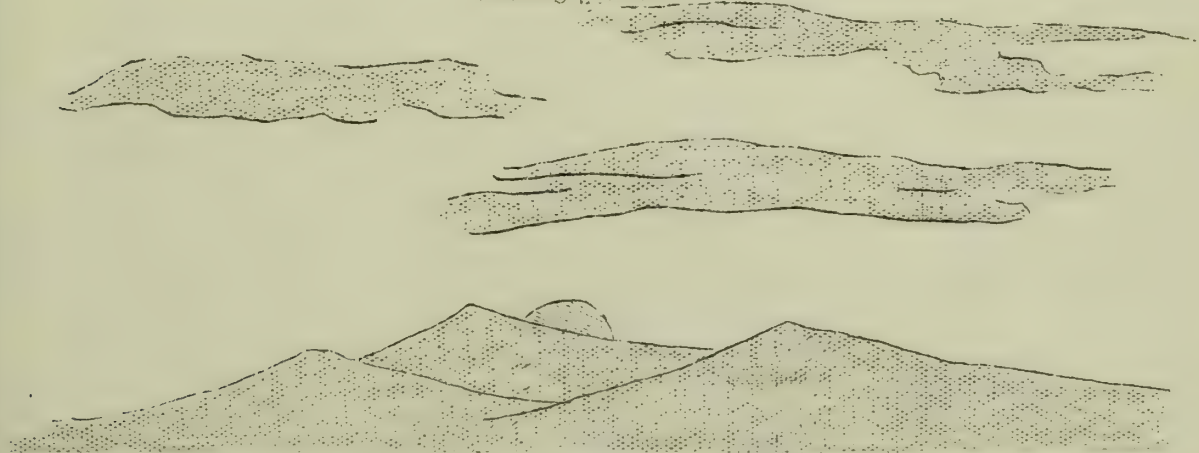
Just the opposite occurs at Carlsbad Caverns where the original conception (architecturally sound) is bound to dwarf, through rapid expansion, the significance of the cavern entrance, because the two are in direct conflict.

At up tki, the ruins will form its own picture, the headquarters development not too dominant or necessary, and justly so. If future expansion must eventually go beyond the one-man control the resultant development on the limited site may completely dominate the ruins. Can one be certain that Wupatki will not eventually shelter all maintenance equipment for the proposed Loop Road? I do not believe two groups of buildings will appear scattered--one being considerably less conspicuous than the other.

This single grouping of buildings is difficult from another angle. We are dealing with two separate and distinct functions; one, public contact (the front yard), the other, private service (the back yard) and I do not believe John Public is very much interested in the latter. Furthermore, conspicuously located service buildings excite the architect to unnecessary extremes in design and cost. And isn't it true that an employee's residence, to be thoroughly livable, must show that it is occupied inside and out, almost to the point of untidiness?

In conclusion, I should say that extremely limited development would justify a single structure or grouping of structures. Where present and future development may go beyond this point, public contact buildings should be given first consideration.

***** J *****



SOUTHWESTERN MONUMENTS
DECEMBER, 1938, REPORT
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HEADQUARTERS: National Park Service, Coolidge, Arizona.

Frank Pinkley, Superintendent; Hugh M. Miller, asst. superintendent; Parke W. Soule, chief clerk; Dale S. King, ass't. park naturalist; Charlie R. Steen, jr. Park archeologist; Natt M. Dodge, jr. park naturalist; Luis A. Gastellum, clerk; Robert Petrie, clerk stenographer; Ira G. Goodwin, and Larry Mungorro, CCC clerks; F. E. Stonchocker, machinist; J. L. L. Baehr, utility man; Max Jaso, machinist helper, CCC; George Sheffield, mimeograph operator, CCC. DETAILED FROM REGION III: J. H. Tovrea, ass't. engineer; and Charles D. Carter, jr. landscape architect.

FIELD STATIONS - POST OFFICE	PERSONNEL	1938 VISITORS	ACRES AREA
1. ARCHES; Moab, Utah	Harry Reed, cust.	1,448	33,680
2. AZTEC RUINS; Aztec, N.M.	T.C. Miller, cust.	20,214	25.88
3. BANDELIER; Santa Fe, N.M.	C.G. Harkins, cust; Geo. Shelly, grader operator; 3 guides and helpers, CCC.	14,619	26,026.20
4. CANYON DE CHELLY; Chin Lee, Ariz.	Ted Cronyn, cust.	1,573	83,840.00
5. CAPULIN MOUNTAIN; Capulin, N.M. H. Farr, cust.	30,200	680.37	
6. CASA GRANDE; Coolidge, Ariz. A.T. Bicknell, cust. Don Eggermayer and D. Jones, rangers, J. Rodgers, S. Coyle, and S. Hall, guides, CCC.	33,761	472.50	
7. CHACO CANYON; Chaco Canyon, N.M.	Lewis T. McKinney, custodian	6,271	21,512.37
8. CHIRICAHUA; Douglas, Ariz.	Frank Fish, cust. H. Bennett, Wm. Stone, H. Minton, guides	9,145	10,694.80
9. EL MORRO; Ramah, N. M.	R.R. Budlong, cust.	3,208	240.00
10. GILA CLIFF DWELLINGS; Cliff, N.M., no custodian	105	160.00	
11. GRAN QUIVIRA; Gran Quivira, N.M. G. Boundey, cust.	3,113	610.94	
12. HOVENWEEP; Cortez, Colo., T.C. Miller, Aztec, N.M.	163	285.80	
13. MONTEZUMA CASTLE; Camp Verde, Ariz. E. Jackson, custodian; Edwin Alberts, park ranger	10,645	520.00	
14. NATURAL BRIDGES; Blanding, Utah. Z. Johnson, cust.	741	2,740.00	
15. NAVAJO; Tonalca, Ariz. John Wetherill, cust. J.W. Brewer, Jr., park ranger	411	360.00	
16. ORGAN PIPE CACTUS; Ajo, Ariz. no custodian	6,200	330,670.00	
17. PIPE SPRING; Moccasin, Ariz. L. Heaton, act. cust.	2,245	40.00	
18. RAINBOW BRIDGE; Tonalca, Ariz. no custodian	222	160.00	
19. SAGUARO; Tucson, Ariz. Carleton Wilder, ranger	20,422	63,284.00	
20. SUEDE T. CRATER; Flagstaff, Paul Beaubien in charge	6,922	3,040.00	
21. TONTO; Roosevelt, Ariz. G. G. Philp, in charge	4,985	1,120.00	
22. TUMACACORI; Bx 797 Nogales, Ariz. L. Caywood, cust.	15,289	10.00	
23. WALNUT CANYON; Flagstaff, Ariz. Paul Beaubien, jr. archeologist; C. Leffler, T. Maloney, S. Cataldo and R. Beishline, CCC guides	13,526	1,873.00	
24. WHITE SANDS; Alamogordo, N.M. Tom Charles, cust. Johnwill Faris, ranger and Joe Shepperd grader operator	110,305	142,987.00	
25. WUPATKI; Flagstaff, Ariz. Paul Beaubien, in charge	2,754	35,865.00	
26. YUCCA HOUSE; Cortez, Colo. T.C. Miller, in charge	172	9.60	
TOTAL FOR 1938: 1,188.91 square mi	319,164	760,907.46	

OPENING

By Superintendent Frank Pinkley,
Southwestern Monuments,
Coolidge, Arizona.

Reports would indicate that the run of visitors in our district this year is not up to par either in numbers or in amount of money expended. The weather was bad for part of the month, but that alone will not account for all the facts. The people who come are, so far as our tests show, intelligent and interested; in other words, while the quantity of visitors is off, the quality is as good or better than usual.

I think the field reports will show that the boys have all been busy and that the work is progressing very well. This really shows up better in the day-to-day diaries, which we require our field men to keep sending us a copy, than in their formal official reports herewith inclosed.

In this matter of keeping track of what goes on among our units, we would like to describe a few of the lines of communication which bring the information across our desk.

During the month any man from our office who has occasion to make a field trip must file a written report as soon as he comes in covering the details of his trip. These reports are expected to run from one or two to five or six single spaced typewritten pages for each monument visited and are the basis upon which further action is started looking to the correction of the matters brought up. Enough copies of these reports are made up to provide us with a working copy, two copies which go to your office at the end of the month, and one copy to the Regional Office.

At the end of the month the Custodian furnishes us a copy of his regular monthly narrative report which we include in this report to you. He also sends us a copy of his daily diary showing how his work has gone from day to day. In this daily diary the man is supposed to be talking straight across the board, and can and, as a matter of fact most of them do, include details and personal reactions which have no business in the whole background of the monument affairs. Another report submitted is the report of visitors handled during the past month which shows how many parties each employee handled through the field trip or the museum trip, total number of each kind of trip per day, length of time of trips, etc. These figures give us detailed data on the visitors and afford a clear picture as to how much of the employee's time has been taken up with visitor contacts. We also require an automotive report which covers a complete inspection of each automobile, including an answer to about fifty direct questions as to the condition of its various parts, its mileage during the month, the amount of gas and oil used and the cost and description of any repairs made during the month.

We are also reviving a report which we used a year or two ago and thought we could do without. This is a report form which any visiting officer takes with him to the monument and cooperates with the

OPENING (CONT.)

Custodian in filling out. There are detailed questions as to the appearance of the personnel, the administration buildings and area, the residential buildings and area, condition of general equipment, and so on. Both men sign this report and a copy is left with the Custodian, the other being turned in at headquarters. The Custodian's copy becomes the check-up on the next round to see if all adverse conditions have been corrected.

With this series of reports in addition to the fire inspection and safety inspection reports and others required by your office, we try to bridge that very difficult gap which would be required if you took a first class park apart, scattered the 26 parts over three or four states and asked it to go on functioning.

Our financial affairs were in good shape at the end of December with the year half gone. Our office work continues to be too heavy and the boys are putting in too much over-time. We can see no let-down in the work during the next year and we need another clerical position in order to give our men annual and sick leave without too much over-time.

The administration personnel in charge of the field units is doing well and the morale seems good. Two positions are vacant and we are hampered by not having the men and other men are having to put in overtime in order to cover the vacant jobs.

The proposed big Cuarto Centennial celebration of New Mexico, to take place in 1940, has been brought up officially during the last month and will henceforth hold a place in our work and in our reports. This is to be a celebration of the Coronado Expedition and will touch us at several of our New Mexico monuments which are landmarks of Spanish history.

We are having trouble getting our Public Works program under way but are pushing hard under adverse conditions. We did let the contract for a water supply drill hole at Navajo National Monument, which was one of the jobs we were afraid of. We expect the contractor to move in within a few days after we get approval.

The well at El Morro, upon which we pinned great hopes, proved to be a duster at 405 feet. At this depth we had gone through the sandstone where water was to be found, and were out in a formation which gave no hope. We have shut the contractor down and are now waiting for the decision of the geologist and engineer for the next move.

The CCC camps at Bandelier, Chiricahua, and Flagstaff, as well as the spur camp at Casa Grande and the Indian Mobile Unit at Chaco Canyon, have continued their work in a satisfactory manner.

On the whole, the month has been good and the outlook for the immediate future is good.

Cordially,

Frank Pinkley
Frank Pinkley,
Superintendent.

CONDENSED REPORT

IN WHICH HIGHLIGHTS OF THE MONTH ARE GIVEN



Coolidge, Arizona,
January 1, 1939.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

The Condensed Report for the month of December, 1938, follows:

TRAVEL:	December	December	December	Visitor Yr.	Visitor Yr.
Station	1938	1937	1936	to Dec. 1	to Date
Archaeos	65*	50	---	155	220
Aztec	631	503	573	2,571	2,942
Bandelier	215	263	227	843	1,103
Canyon de Chelly	48	4	---	179	227
Capulin Mountain	500*	300	300	4,300	4,600
Cas. Grande	2,605	2,931	3,072	5,279	7,894
Chaco Canyon	182	87	220	833	1,015
Chiricahua	272	265	273	866	1,168
El Morro	47	73	75	389	436
Gila Cliff Dwelling	0*	---	---	10	10
Gran Quivira	147	199	174	329	476
Hovenweep	0*	---	---	10	10
Montezuma Castle	425	403	512	1,185	1,610
Natural Bridges	40*	---	---	114	154
Navajo	6	2	---	7	77
Organ Pipe	700*	700	---	1,400	2,100
Pipe Spring	205	142	92	505	710
Rainbow Bridge	0*	---	---	20	20
Saguaro	1,500*	2,000	1,000	2,800	4,300
Sunset Crater	0*	200	141	611	611
Tonto	220*	360	252	492	712
Tumacacori	1,723	846	1,375	2,291	4,014
Walnut Canyon	333	270	280	1,492	1,825
White Sands	3,500	1,830	3,864	12,480	15,980
Wupatki	0*	75	108	390	390
Yucca House	0*	---	---	50	50
Totals	13,364	11,503	13,021	39,290	52,654

*Estimated

CONDENSED REPORT (CONT.)

Favorable weather, which was general throughout the Southwest during the first part of the month, was probably offset by poor approach road conditions at the most popular monuments with the result that travel showed a decrease from that of November but a considerable increase over that of December, 1937. Tumacacori was the only area where accurate figures could be kept that showed an increase over the previous month.

000 GENERAL

010 Matter of Unusual Importance or Interest

Arches: By Presidential action on November 25, the area of this monument was increased by the addition of 29,160 acres giving it a total of 33,680 acres (see p. 499.)

Chaco Canyon: The custodian's annual survey of ruins shows many on the monument suffering and badly in need of stabilization. The custodian is alarmed at the steady movement of Threatening Rock and suggests immediate action (see pgs. 489-90).

El Morro: Well drilling operations have taken the hole below water carrying formations and drilling was stopped (see p. 493)

New Mexico Monuments: Plans for an extensive program to celebrate the quarto-centennial anniversary of Spanish settlement are well under way (see pgs. 458-468-470-498). Need for considerable additional personnel at several monuments is foreseen (see p. 471).

Saguaro: Crown gall is reported by the University of Arizona Plant Pathology Dep't. as prevalent among the giant cacti (see p. 437).

Walnut Canyon: What is reported to be the first crow bone found in a Southwestern prehistoric site was recently unearthed (see p. 489).

020 Weather

Normal winter weather has prevailed throughout the Southwest with clear days during the first part of the month and stormy conditions general during the last part. The drouth, which adversely affected southern Arizona, was broken. Grand Quivira and Capulin report exceptionally cold weather.

100 ADMINISTRATIVE

123 Park Service Inspections and Visitors

Aztec Ruins: C. Steen, A. E. Underhill, G. Vivian, Ronald Lee, L. T. McKinney, J. Diehl, E. Reed, and A. Neasham.

Bandelier: Dec. Ruhle, J. Hamilton, L. McClatchy, A. Rinchart, C. Richey, Ronald Lee, A. Neasham, J. Diehl, D. King, and E. Reed.

Canyon de Chelly: H. Maier and J. Haile.

Casa Grande and Headquarters: J. Haile, G. Philp, C. J. Smith, Jesse Nusbaum, H. B. Chase, W. E. Austin, Ronald Lee, H. Maier, M. Christianson.

Chaco: R. F. Lee, A. Neasham, J. Diehl, D. King, C. Miller.

Chiricahua: J. Haile and D. Egernmayer.

El Morro: C. N. Gould, J. Diehl, E. Reed, A. Neasham, R. Lee, D. King.

CONDENSED REPORT (CONT.)

Montezuma Castle: H. Maier and J. Hailo.

Pipe Spring: N. Dodge.

Tonto: C. Stton and D. Jones.

Tumacacori: J. V. Lloyd, H. Bill, and A. T. Bicknell.

Walnut Canyon: C. Carter, J. H. Tovrea, J. W. Brewer, C. Doty,
J. Hailo, N. Dodge, H. B. Hammen, and J. Diehl.

Wupatki: J. V. Lloyd.

140 Labor Situation

Chiricahua: More men have gone to work in the mines (see p. 477).

Montezuma Castle: Guest ranches report business poor (see p. 495).

150 New Equipment, Destruction of Old.

Bandelier: Four oil heaters for Operator's Development (see p. 475).

Headquarters: Twelve Flamm cabinets were received (see p. 431).

Montezuma Castle: A number of hand tools arrived (see p. 495).

180 Circulars, Placards, and Publicity

Headquarters: Naturalists gave seven talks contacting 160
people (see p. 504).

Tumacacori: Custodian reached 200 people in three illustrated
talks (see p. 465).

White Sands: A well illustrated booklet about the monument has
recently been published by the custodian (see p. 509).

200 MAINTENANCE AND NEW CONSTRUCTION

210 Maintenance, unusual.

Aztec Ruins: Repairs to the pump and pump house were made (see p. 470).

Bandelier: A broken pipe line was repaired and work was necessary on
residence canals and fireplaces (see p. 475).

Canyon de Chelly: The pump and pump house required repair (see p. 483).

Chiricahua: The laundry room was painted and two tents removed from
the campground (see p. 473).

Gran Quivira: General cleanup was carried out (see p. 463).

Pipe Spring: Considerable plaster repair needed in the fort (see p. 47).

Tonto: Interior of the residence-museum was calcimined and the roof
of the storage shed repaired (see p. 473).

220 Improvements

Aztec Ruins: The trail for visitors was re-routed (see p. 469).

Casa Grande: All equipment has been moved into the new shop (see p. 50).

Montezuma Castle: Trees and vines were planted (see p. 495).

Pipe Spring: Twelve more poplar trees were set out (see p. 472.)

Tumacacori: Considerable work was done in the museum to facilitate
maintenance activities (see p. 485).

230 New Construction

White Sands: Foundations were poured on the Operator's residence
(see p. 465).

231 CCC Construction

Bandelier: Only the installation of heating apparatus is necessary
to make the operator's Development 100 percent complete. Cabin
units A. and B. are complete except painting and decorating. The

CONDENSED REPORT (CONT.)

Operator's Residence is practically complete, and the Comfort Station is ready for painting. Furniture making and rock quarrying were continued through the month. Fuel oil distributing system was brought to virtual completion and the hot water system ready to be hooked up. Landscape work is keeping up with construction (see p. 477).

Casa Grande: The shop was wired and plastered; interior painting was commenced in the warehouse; the oil house is ready for interior fixtures; a general monument cleanup was made; power line change-over was completed; the walls of the equipment shed are up to lintel height and some of the beams were placed. (see p. 481-2).

Chiricahua: Materials obtained in sloping 1,050 square yards of banks were used in grading and landscaping. One half mile of Bonita Highway was re-surfaced. Grading of walks at the administration building was completed and painting of the building continued. Carpenter and quarry work was continued (see p. 479).

Walnut Canyon: Work was started excavating for the administration building and for the water system (see p. 506).

Wupatki: The custodian's residence and water system projects were commenced (see p. 489).

300 ACTIVITIES OF OTHER AGENCIES

310 Public Service Contractors

Chaco Canyon: S. Tanner sold out his trading post to A. J. Lavender (see p. 491).

520 Cooperating Agencies

Navajo: Two very useful sets of maps were donated to the ranger by the Soil Conservation Service (see p. 467).

Pipe Spring: Roads were worked by the Indian Service (see p. 471).

350 Donations and Accessions

Bandelier: A prehistoric vessel found by CCC boys and a set of aerial photographic maps were acquired by the museum (see p. 475 and 505). One book was donated to the library.

Headquarters Library: One hundred twenty-two publications were received during the month (see p. 504).

Navajo: Topog. and aerial-photo maps were received (see p. 467).

400 FLORA, FAUNA, AND NATURAL PHENOMENA

410 Ranger, Naturalist, and Guide Service

All Monuments: Guide service records are shown on a statistical table on page 507.

Aztec and Tumacacori: Vacancies in ranger positions make complete service difficult and work a hardship on custodians (see p. 458).

Bandelier: A strong effort to prevent people from visiting ruins without a guide is meeting with encouraging success (see p. 474).

Headquarters: Research on visitor movements show definite travel routes through the Southwest and preliminary studies point to valuable information to be obtained in investigating these routes preparatory to planning museum displays (see article page 522).

422 Museum Service

Casa Grande: The display depicting pot and basket making methods

CONDENSED REPORT (CONT.)

was revised and improved (see p. 481).

Montezuma Castle: Improvements of museum displays continued (p. 517).

Navajo: Plans are under way for the establishment of a nature trail (see p. 467).

Saguaro: A contact station has been established and the "Cactus Trail" put in use (see p. 487).

Tumacacori: An illustrated talk by Father Stoner attracted 54 listeners (see p. 485). Two more rooms of the museum have been opened to visitors, and many expressions of great appreciation have been received by the custodian (see p. 486).

460 Birds

Bandelier: A flock of Merriam Turkey has made its winter range close to headquarters (see p. 516).

Casa Grande: Experiments with banded house finches show that some can be transported some distance from locations (see p. 521).

Chaco: A loon was banded by the custodian's wife (see p. 514).

Chiricahua: What is thought to have been Mexican Thick-billed parrots were seen (see p. 515).

El Morro: Quail introduced last spring have increased (see p. 515).

Headquarters: Birds handled in banding operations total 177 (see p. 515).

Montezuma Castle: Betty Jackson's bird notes are on page 518.

Pipe Spring: In a re-stocking program, 65 Gambel Quail were released. Since September, 476 birds have been handled in banding (see p. 520).

Wupatki: Seventeen Gambel Quail were released. Several flocks were reported as resident by a local Indian (see p. 469).

470 Other Animals

Capulin: An ever abundance of porcupines is reported (see p. 497).

Chiricahua: Ninety one mountain lions have been killed in the vicinity of the monument in the past eight years (see p. 478).

El Morro: The custodian has invented an effective device for ridding the monument of cats without incurring the wrath of his neighbors (see p. 514).

500 PUBLIC USE OF MONUMENT FACILITIES

510 Increase or decrease in travel

All areas: A general decrease from November records shows an increase in the quality of interest shown by visitors (see p. 457).

White Sands: Road construction on the approach to the monument is considered as contributory to the drop in number of visitors (see p. 460).

530 Newsworthy Visitors

Aztec, Bandelier, El Morro: Members of the New Mexico Quarte Centennial Commission visited these areas in the interest of the state wide program planned for 1940 (see pgs. 470, 476, and 496).

Saguaro: Bruno Lessing, American Airlines officials, and Dr. J. E. Holloway of New Zealand visited the monument (see p. 488).

600 PROTECTION

610 Police

Montezuma Castle: Initial carvers were reprimanded (see p. 494).

Saguaro: An undesirable visitor was taken to the sheriff (see p. 460).

Yucca House and Heavenweep: Due to snow and bad roads, patrols of these areas were impossible (see p. 460).

CONDENSED REPORT (CONT.)

640 Destruction of Predators

Casa Grande: Three cats were killed during the month (see p. 519).

Saguaro: One dog was removed from the monument (see p. 487).

650 Signs

Chiricahua: Several temporary signs were placed (see p. 476).

Montezuma Castle: Approach roads are being signed by the Forest Service (see p. 495).

Saguaro: Several signs were installed (see p. 487).

Navajo: Plans for rustic signs submitted (see p. 467).

700 ARCHEOLOGY, HISTORY, PRE-HISTORY

710 Ruins Stabilization

Aztec Ruins: Work on the Kiva roof is 75 percent complete and on the walls of the newly excavated rooms is 50 percent complete. Drainage activities have been of great value (see p. 468).

Chaco: Weather has controlled the work with drainage and wall patching the major accomplishments; some wall support (see p. 491).

Montezuma Castle: Stabilization badly needed (see p. 495).

720 Discoveries

Gran Quivira: Large quantities of earred beans and corn were found in a ruin not located on the monument (see p. 468).

Walnut Canyon: Screening has revealed 12 bird bones (see p. 439).

Aztec Ruins: Two rooms were excavated by Steen (see p. 505).

730: Historical Items

El Morro: Casting of inscriptions has continued. A new method of accentuating inscriptions for photography has been developed by the custodian with the use of stove polish (see p. 498).

900 MISCELLANEOUS

Arches: Prospects for an all-paved approach road and a suitable water supply are good (see p. 500).

Chaco: Threatening Rock continues to move (see p. 468).

Headquarters: S.W.M. Asso. bulletin #1 sent to publishers (see p. 504).

Tonto: The entrance road suffered its annual washout (see p. 473).

Cordially,

Frank Pinkley
Frank Pinkley,
Superintendent

FIELD REPORTS

FROM THE MEN ON THE JOB

WHITE SANDS

By Tom Charles, custodian,
Alamogordo, New Mexico.

Visitors this month, 3,500; since October 1, 15,980.

This seems to have been a busy month but as I recount the things accomplished they do not make a very long list.

Work around the headquarters has been dragging for some time but I notice now that about 12 or 15 men are pouring the foundation on the custodian's residence, which livens things up considerably. Then Johnie has moved his family to residence No. 2 and John will having moved into No. 1 makes the area look a little less unoccupied.

Our visitors are woefully lacking, but the filling station men and eating house proprietors in town complain of short travel in about the same proportion as we are afflicted and we all agree that new road construction on Federal Highway No. 70 is accountable. There have been about 75 trucks, using 18 miles of the highway between the Sands and Las Cruces. There was a truck load of gravel every minute, two shifts a day, with the empties thrown in between. The dust never settled. So we have had no travel from the west, and all we had from the east was those who made a special trip to see the Sands. In addition to this 23 miles of new construction west of the Sands, there are two similar projects on Highway 70 east of Alamogordo.

So road consitions have not been good and, while these projects should be finished in January, the road gossip is that an 18 mile project on 70, through the Mescalero Indian reservation, will be called about the time these are finished. So we are likely to have another six months of blocked highway from which we will probably suffer more than from the present construction because it will be in the tourist season and will be on the east of us where we get most of our visitors. About all the satisfaction I can get out of all this road construction is in anticipating the crowds for 1940 when the Coronado Cuarto Centennial will be on.

The weather has been pleasant almost every day this month except for a couple of fairly good rains for which we were thankful.

This week Mrs. Nancy Grey, a radio station operator with the Milwaukee Journal, spent a couple of days with us. She liked the Sands very much and feels optimistic as to an increase of tourist traffic in the Southwest the next few years. Last week W. D. MacMillen, who has taught astronomy in the University of Chicago for 31 years, drove into the Heart of the Sands and said, "Well I drove 186 miles to see these Sands and I got my money's worth." Dr. MacMillen went from here to

WHITE SANDS (CONT.)

Lubbock, Texas, to visit a friend, and the next day the Lubbock Journal carried a two column, black headline article about the wonders of the Great White Sands. So both the doctor and the custodian were satisfied with that visit.

Our registration book shows 665 names this month as against 3,901 in August. As I figure it, our 665 is about 17 percent of our banner month last summer. Using our usual 17 percent registration, it would give us 3,990 visitors this month, but I do not believe we had that many for we had two good sized school parties and had nearly 100 percent registration from them so I believe we will do us justice to give us about 3,500. We had 27 states, three foreign countries, and Alaska represented.

*****SWM*****

NAVAJO

By James W. Brewer, Jr.,
Tonalea, Arizona.

Visitors this month, 6; since October 1, 77.

Arriving in three cars, six visitors came to the Betatakin section of this monument. All were visitors with official business and all were contacted.

WEATHER

The weather hasn't been entirely to blame for the low number of visitors; the month started off in an Indian summer way but, like March is supposed to do when it comes in like a lamb, December is going out like a lion. Temperature has dropped below freezing every night and snow has fallen on three occasions, the last being today's two inches. The days have been moderate with temperatures in the upper thirties or lower forties.

ROADS

The approach road to Betatakin was in splendid shape until a snowfall on the night of December 16 made chains necessary until the noon thaw. The Marsh Pass Road received a blade treatment between Red Lake and Kayenta about the eighteenth.

ADMINISTRATIVE

On December 17 we had five-sixths of our visitors. Mr. Lyons, representing a well-drilling company, called in the morning to be shown

NAVAJO (CONT.)

the location selected for the pump-to-sump line.

When I returned to Shonto I found Regional Director Herbert Maier and Jack Haile with L. L. Hargrave of the Museum of Northern Arizona just about to start for Betatakin. I joined the party and together we climbed into and out of Betatakin talking mostly about house site and how to get the most house with a little money.

Sallie fixed us a lunch in Milton's tent while the rest of us went thru the ruin. Mr. Maier suggested improving the trail below the ruin and prohibiting visitors from walking on the ruin itself. Because of a train connection Mr. Maier had to make in Flagstaff, we could not view the ruin from across the canyon.

IMPROVEMENTS

A plan for directional road signs has been formulated and specifications for a type of peeled-juniper-post-carved-pine-panel sign has been forwarded for approval. Research is underway for a well-located nature trail. (Got some good stuff from Paul.) Abandoned campsites along the approach road have been policed.

ACCESSIONS

The Soil Conservation Service has supplied this office with some splendid maps; one, a set of four topog. maps that covers this whole corner and includes all three ruins on the monument. The other is a set of two aerial maps that together cover almost the same territory.

GENERAL

Boss, the thing that seems to be worrying most of us who are thinking about Navajo is just where to put the new house when it comes. The ideal location is ruled out because it can't be done with the money available; the next best site is at, or near, the head of the canyon and the cost of a water line again steps in. So, it boils down to simply putting the house on a spot where water is most economically available.

It's a swell layout for right now, but this ranger wonders what thought is being given to "visitor flow".

If the house could now be placed so that at a later year it could be used as a checking station, we would all be proud of our foresight.

*****SWM*****

GRAN QUIVIRA

By George Boundey, custodian,
Gran Quivira, New Mexico.

Visitors for December, 147; since October 1, 476.

For a winter without much snow, the old timers say this is the coldest in 40 years.

During the month we have had several visits from the "1940 Quarto Centennial" representatives. They were especially interested in roads, and contemplate doing work on both the east and south roads.

Somebody during the past few months has done considerable excavating in the "Montezuma" pueblo situated about three miles to the west of this monument. Being told there was considerable charred corn and beans exposed, I went over to look around. I found two rooms about eight by 12 feet, each filled to a height of between two and three feet with burned corn and beans. The charring had preserved them.

We have a radio and a wind charger to keep up our batteries, and here on this hill with no interference to hinder, we can get almost anything we care to tune for. A friend who has been radio operator on board ship can pick up and translate for us code messages from ships as far away as the Philippines.

Work this month on the monument has been a continuation of the work of last month, a general raking and cleaning up of trails and things in general.

*****SWM*****

AZTEC

By T. C. Miller, custodian,
Aztec, New Mexico.

Visitors this month, 631; since October 1, 2,942.

GENERAL:

December has been a busy month for this monument. Not so much in the way of travel, but we have accomplished a lot on our Trail Project and on Ruins Stabilization.

One official trip was made to Chaco Canyon National Monument on December 9 in connection with the Mobile Unit. While at Chaco, Custodian McKinney and I took measurements on the Threatening Rock. It was a big surprise to me when I found all three gages set by Andy Clark with his engineering crew, were out about three and one eighth inches. This movement of the rock has probably been going on for a thousand years or more, but it is not noticeable without those steel gages.

AZTEC (CONT.)

Another official trip was made to Gallup by the custodian on December 13. Mr. and Mrs. Charlie Steen accompanied me on this trip and caught their train for Arizona. The custodian returned to Aztec after purchasing a new battery for truck No. 8121.

An attempt was made to inspect Yucca House and Hovenweep on December 20, but due to eight inches of new snow and difficult roads, I was unable to get in to either of the monuments.

WEATHER

We have had a lot of different kinds of weather this month. Nice warm sunny days and cold nights for the first part, while during the latter part much rain and snow has been experienced.

Max. temp.	57	Clear days	11
Min. temp.	3	Partly cloudy days . . .	12
Total snowfall in inches .	6 $\frac{1}{2}$	Cloudy days.	7
Precipitation for the month	1.02		

TRAVEL

Six hundred thirty one people entered the monument in 219 automobiles coming from 25 states, the District of Columbia, and Alaska. Last year we had 503 people in 170 cars. This is an increase of 128 people and 48 cars.

ROADS AND TRAILS

As previously reported, work began November 21 on excavation of two rooms, putting a new drainage system from the roof of the Great Kiva, and leveling, grading, and draining the court under the direction of A. E. Underhill.

Charlie Steen, archeologist for Southwestern Monuments, arrived on November 28 and very capably supervised all excavations of rooms on this project. He departed for Headquarters December 13.

Excavations were made, trail graded through rooms, tile drain installed and carried to a point on east side of Ruins and disposed of as per approved plan. All trenches were tamped with good grade of moist clay.

The old stairway leading from the rooms in the northwest corner of ruins has been removed and the visitors are guided from the rooms out into the court through original doors. It is a nice easy grade as well as a more interesting and educational trip. All work on this project was suspended due to inclement weather December 17.

No attempt was made to lay a bituminous trail as the weather is well below freezing every night. It is hoped that Mr. Underhill will return next spring and finish this job. The job, as far as it has gone has improved the appearance of the ruins 100 percent. The tile drain had a chance to do its stuff on three different occasions, and it functions

AZTEC (CONT.)

very satisfactorily.

MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTIONS

On November 23, our water pump went bad. We have had a lot of trouble with this pump in the past and it has been necessary to re-leather it about once a month. This was due to the fact that the concrete foundation on which the pump was sitting was in bad shape. It was necessary to lay a new concrete floor in the pump house, and pull the pipe to releather the pump. To date the job is holding up nicely, and we have had no more trouble with the water pump.

INTER-MONUMENT TRANSFERS

Truck No. 8121 was transferred from Chaco Canyon National Monument to Aztec Ruins, and Truck No. 8116 from headquarters, on November 25.

MOBILE CCC UNIT

Work was continued on stabilizing the walls and re-roofing the kiva with bitudobe. This job is about 75 percent complete. Some delay has been experienced due to freezing weather.

The first layer of bitudobe was put on December 1.

The walls have been stabilized up to roof height. It was necessary to keep fires in the kiva to prevent the bitudobe from freezing. The roof was also covered with straw. The first layer has completely dried, and it is ready for the finish coat. We are now waiting for better weather before finishing the job.

The walls of the two rooms recently excavated by Charlie Steen are being stabilized. To date this job is about 50 percent complete.

The entire month was devoted to work on the kiva and stabilizing walls. These jobs have been closely watched and supervised by the custodian. Gordon Vivian, archeological foreman, has been in a few times inspecting the work.

CORONADO CUARTO CENTENNIAL

The Coronado Centennial seems to be creating a lot of interest over the state. Charlie Steen and the custodian attended the first meeting held in Farmington, December 7. Officers were elected for San Juan County, and it is believed that New Mexico will be alive with tourists in 1939 and 1940.

NATIONAL PARK SERVICE OFFICIALS:

A. E. Underhill, as previously reported, arrived on November 18. He remained here on the Trail Project until December 1, when he received orders to proceed to Colorado National Monument. He returned here December 8 and remained until December 16.

AZTEC (CONT.)

Charlie Steen arrived November 28 and departed December 13.

Ronald F. Lee, supervisor of Historic Sites, Washington, D. C.; Jack Diehl, District Engineer, Region III; Erik Reed, archeologist, Region III; Herber O. Brayer, director, Coronado Cuatro Centennial; Aubrey Neasham, Santa Fe; and Mike Gallegos, Santa Fe, State Highway Engineer, were official visitors arriving and departing December 14.

This party made the complete ruins and museum trips and commented on the progress being made here at this monument. Furthermore, they promised us a new bridge across Estes Arroyo. This bridge had been promised by the State of New Mexico prior to their visit, but we are sure when all these "Bass Hats" tell the State of New Mexico the connection Aztec Ruins has with their 1940 program, the bridge will be built.

In addition to the new bridge for Aztec Ruins, this party told us of the proposed building of an approach road to Chaco Canyon. If that's the case we might have a little competition here in San Juan County.

Boss, it will be necessary to double the personnel for 1939 travel and we will probably need three times that many in 1940. Don't you think you had better begin scratching around for a few of those dollars that will be necessary to pay these guides?

Gordon Vivian and Lewis T. McKinney, Chaco Canyon, were here Dec. 1. Kenneth Boone of the Mobile Unit, Chaco Canyon, was here December 20.

*****SWM*****

PIPE SPRING

By Leonard Heaton, acting custodian
Moccasin, Arizona.

Visitors this month, 205; since October 1, 710.

My travel figures for the month of December show more visitors by ten, but the total travel through the monument is 33 less. The increased number to the fort came from the CCC Camp which made up about 50 percent of my visitors this month; and the decrease in travel is caused by the fact that the stock men have finished up their fall sales and are pasturing their stock for the winter.

The total travel is as follows: Visitors to the fort 40, campers three, through travel 162.

The roads to the monument have been in fair condition this month and some work has been done by the Indian Service in grading and smoothing the road and fixing up two or three bad culverts. Right now the roads are quite muddy from the storms of the past week.

On December 20, I hooked the truck on the drag and spent about five hours dragging the roads in the monument. They were packed so hard and were so rough it was lots of work to get them smoothed down. They need some more dragging, and I will get at it if we get some

PIPE SPRING (CONT.)

drying weather after the last storms.

Our weather the first part of the month was dry and clear, days pleasant and warm for the most part. The last week has been stormy and cold. It cleared off and froze hard last night, and it looks like our storm is over for a while. We have had 13 clear days, three partly cloudy, eight cloudy, and six stormy days the past month.

I set out 12 poplar trees south of the parking area and three cottonwoods along the path between the ponds the past month. I have about 15 more to set out and I think I will have most of the planting done, anyway it is as far as I know, unless some of the landscapers want more trees somewhere else.

I plastered up the ceiling of the fort where the plaster had fallen off. Was doing this when Natt drove in on December 7. This morning when I opened up, I found that another small piece of plaster had fallen and some more is about to fall in the west room, second floor, lower house; the room that I am using for an office. The brick on the chimneys of the upper house are weathering away and falling quite badly this fall. They were cut up some time in the late eighties as far as I can learn, likely by Mr. E. D. Woolley who lived here at that time.

I was very surprised to find Natt here, and when I started out for some more mud to finish up my plastering, he was running all over the CCC Camp trying to find out where I was located. We spent part of the afternoon in taking some pictures and talking over some monument problems. I took Natt and the quail up to stay with me.

Next morning we banded the quail, left them in the hen house, and returned to the monument. Natt got some more pictures and took measurements from the fort for museum developments. He left me some supplies and pulled out for the south rim of the Grand Canyon at noon.

I surely did enjoy his visit and want him with the rest of the gang down there to know that they are welcome to come any time they can get away. Come and stop with us any time.

This might sound like I have been blowing myself into a hole, but I have just had a telephone installed in my home (No. 2R3), so we are a little closer to the outside world than we were. Also I have a small electric plant in the home. No more trimming wicks and striking matches to give us light, as we have been doing the past 13 years.

I hope that you and the Southwestern Monuments Family have the Happiest Christmas and most Prosperous New Year ever.

*****SWM*****

TONTO

By Gordon Gilbert Philp, in charge,
Roosevelt, Arizona.

Visitors this month, 220; since October 1, 712.

This month of December has brought a much needed rain. Since my return from the coast on Sunday, December 18, spasmodic precipitation has occurred. Today, December 22, shows signs of clearing, however.

As I understand has always been the case with the approach road during the rainy season, it is suffering from erosion. The numerous holes and ruts recently filled are clearly washed to their rocky base, and strangely enough the filling cannot be found nearby to remedy the condition. I doubt, however, that even now the road is poor enough to discourage travel, as this month shows a decided increase over November in visitor attendance.

Approximately 220 persons visited the monument during the month. Of this number, I believe I would be safe in saying that not more than 60 percent actually made the ascent from the parking area to the ruin proper. This condition is undoubtedly partly due to the fact that without someone on hand to contact them and to answer just enough questions to stimulate further interest, many probably drive away thinking, "Oh well, I guess there wasn't much of interest there, anyway." Under the present circumstances, little can be done to alter this unfortunate situation, but I am anxiously awaiting the time when I may be of more aid to them.

Junior Archaeologist Steen visited Tonto November 26, and kindly enlightened me on numerous points relative to the Lower Ruin and its ancient inhabitants. Also, we exchanged cars--he took the dump truck leaving me 1805, a pick-up. (1805 is the license number, not the model.)

On December 6, I was pleasantly surprised by the arrival of David and Corky Jones and S. Coyle from Headquarters. They remained for dinner after which the evening was devoted to the preparation of bird study skins.

Maintenance work has been devoted primarily to the improvements of the museum and its display cases. These latter have been refinished, as has the door and other woodwork. The walls have been calcined and the innumerable water stains thus obliterated. Both front and rear doors have been re-hung and made to swing freely. Weather stripping has been placed around windows and doors. The two specimen cases were uncrated and placed so as to be readily accessible.

A trip was made to a nearby canyon and an abandoned, manufactured iceless cooler picked up. It has since been re-painted and a few minor repairs made so that it is now a serviceable and worthwhile addition to the monument's possessions.

Repairs were made to the retaining wall about the Lower Ruin in an attempt to prevent further erosion of the fill directly back of the wire fence.

TONTU (CONT.)

On December 9, a trip was made to Headquarters on official business.

Five days leave was taken, during which time Ben Frazier acted as caretaker. Having lived in Roosevelt most of his life, he is well informed and able to give an intelligent answer to most any question a visitor might ask, relative to this vicinity.

*****SWM*****

BANDELIER

By. C. G. Harkins, custodian,
Box 669, Santa Fe, New Mexico.

Visitors this month, 215; since October 1, 1,103.

Visitor travel was slow during the month, although the visitors that did arrive were very interested in our ruins. The condition of the road discourages a good many who would otherwise come into the monument. At present I understand there is a crew from the State Highway Department surveying for a new location of the entrance road, and I also understand there is a movement under way to bring our new approach road around by Espanola. This we do not want, as it would increase the distance to Santa Fe and cut out San Ildefonso Pueblo, one of the major points of interest along the present entrance road.

There is demand for a good road that would serve this community and the area comprising the Los Alamos Ranch School and reach Santa Fe over the shortest possible route to include the principle points of interest along the way.

Sixty six cars brought 215 visitors from 20 states and Washington, D. C.; 111 people required 34 field trips and 100 people took 32 museum trips. Comparing this report with December of 1937, we had 58 less visitors, took five more field trips and four more museum parties, gaining on party time in both field and museum.

With few exceptions the earlier part of the month, and Harvey cars carrying their own couriers or guides, all visitors to see the ruins this month were accompanied by a guide. The slogan, "No guide no Ruins Trip" has been literally in effect and, with a few exceptions, has worked without question.

Our figures belie us on these quotations but, in case of a misunderstanding, the visitors not taking the guided trips consisted of; families to see boys in the camp, friends of the residents, cooperative agency officials just looking things over, and Harvey parties having their own couriers.

GENERAL

Hundreds of Christmas trees have been taken from the Jemez Mountains

BANDELIER (CONT.)

to Santa Fe, Albuquerque, and other communities, becoming decorations for the streets and many homes. The display of lights and decorations at Madrid are beyond comprehension and surpass any of the displays in previous years.

All but 15 or 20 of the 30 boys have gone to their homes for the holidays as have the majority of the technical foremen, but a force of two are here holding down Fort Bandelier. Rather quiet and unusual!

MAINTENANCE

A broken water line near the Hotel Utility Area caused considerable grief and shortage of water until the seepage arose to the surface indicating the cause and location of the trouble. Also the intake has had to have attention as water freezing over the seeps and ice damming up diverted the stream away from the seeps causing a shortage in the intake box. Snow freezing on the roofs of the residences at night and thawing during the day has caused a small amount of work patching around the canales where the contractions have made openings. The tuff rock fireplaced in the residences will not stand the heat and have to be patched occasionally.

MUSEUM

Nine sheets of aerial photographic maps for a mosaic of the Rio Grande watershed of this area were received from the SCS and have been forwarded to Headquarters for mounting.

While roaming the monument recently, some 30 boys found a cooking pot completely intact, half filled with silt, in a cave in Lumis Canyon. It was turned in for display in the museum.

DONATIONS

One book entitled "The Rain Bird", a study in Pueblo Design, by H. P. Mera, compliments Laboratory of Anthropology, was received.

NEW EQUIPMENT

Four oil heaters for Operator's Development.

PARK SERVICE VISITORS

Dr. G. E. Ruhle, Jim Hamilton, Leo McClatchy, Allan Rinehart, Chuck Richey, Ronald F. Lee, Aubrey Neasham, Jack Diehl, Dale King, and Erik Reed visited the monument.

OTHER AGENCIES

Margaret Breen and Kenneth B. Disher, Indian Service; H. R. Tolley,

BANDELIER (CONT.)

F. F. Elliot, D. S. Myer, Roy J. Kimmel, Hugh Collins, J. A. Adams, and Frank C. W. Pooler, Forest Service; and Herbert O. Brayer, University New Mexico, came to Bandelier this month.

WEATHER

The weather has been typical of December with occasional snow flurries and cold nights. Your custodian returned from annual leave ahead of a snow storm, in fact he was either ahead of a snow storm or behind one all during his leave, and was plenty glad to return to a good monument.

The statistics are as follows:

Days clear	16	Mean Max.	45.38
Days cloudy	5	Mean Min.	17.06
Days pt. cloudy	10	Mean	31.22
Max. Temp.	55	Precipitation	.82
Min. Temp.	4		

*****SWM*****

BANDELIER CCC

By James Eden, acting project
superintendent,
Box 669, Santa Fe, New Mexico.

The installation of the heating unit, recently received at this monument, in the Lobby and Sales room of the Operator's Development will enable us to call this unit 100 percent complete.

Completion of the grinding of the flagstone floor in one room of Cabin "B" and the staining of the woodwork and floors of both Cabin "A" and "B" units have brought these two projects to the point of painting and decorating. Immediately upon receipt of painting specifications, in order that the decorating may be completed, these two cabin groups will be completed 100 percent.

The floor furnace for the Operator's Residence has arrived and, upon its installation in the near future, this project will be 100 percent complete.

Plastering of the Comfort Station has been finished during the month. All door and window openings have been installed. With the exception of a few minor items to be accomplished by the carpenter crew, this project is complete ready for painting and decorating.

In addition to the work on the projects, the carpenter crew has completed considerable work on the show cases in the Lobby and Sales Room as well as other pieces of furniture. Also this crew has been working on a sign for El Morro National Monument under the Signs Project.

Quarrying of building stone for use in wall and floor construction of future buildings in the Operator's Development has gone forward all month.

BANDELIER CCC (CONT.)

Complete cleanup work of the area around the stable used by the concessionaire has been finished during the month under the Razing Undesirable Structures Project.

Under the Landscaping Project, the entire areas of both the old ranger station and the stable have been naturalized; also under this project considerable work has been accomplished on the slope above the Hotel Development.

All distribution lines for the fuel oil distributing and storage system have been installed up to the point of connecting pumps in the various buildings. Pumps, safety valves, etc., have been received and are ready for installation at an early date.

All piping has been installed in the Hot Water System, Operator's Development, during the month, there lacking only the hooking up of the hot water storage tank and the heaters to call this project complete.

A small crew has been at work all month on the Soil Preparation Project hauling top soil and clay to the Hotel Development. Flagstone walks and rock ledges which form the terraces for planting pockets have been built between the Lobby and Sales Room unit, Cabins "A" and "B", and the Comfort Station under the two projects, Walls and Walks. There remain only walks and ledges on the west side of the Comfort Station before these projects will have gone as far as they can be carried at present as they cannot be completed until the erection of Cabin "C" and "D" groups.

*****SVT*****

CHIRICAHUA

By Frank Fish, custodian,
Douglas, Arizona

Visitors this month, 272; since October 1, 1,163.

The great Arizona drought of 1933 ended with storms on the 15th and 19th of the month. Total precipitation measured at the Faraway Ranch was 2.07 inches. Churches throughout the state held special services of prayer for moisture. The rain gods finally relented and stockmen and farmers rejoiced. Higher elevations of the scattered Arizona mountains are capped with snow. Dr. Douglas of tree ring fame predicts a wet winter for the state.

Approximately 100 men have been placed on the payroll in the Bisbee mines during the past few weeks. One furnace at Douglas will close soon for improvements and the lack of ore. The Phelps Dodge Corporation has just received an order from the government for 2,000,000 pounds of copper tubing to be fabricated at Los Angeles and the copper to come from the mines of Arizona.

Road improvements are continuing in the county. The Steins Pass section between San Simon and the Arizona Line (seven miles from Road

CHIRICAHUA (CONT.)

Forks) has been surfaced from the State Line to within four miles of San Simon. Relocation of the section between San Simon and Bowie is underway--this section will be built south of the railroad eliminating two railroad crossings. The W. P. A. have made good progress on construction from the Monument-Des Cabezas road through Apache Pass. This road follows the old Butterfield Stage Route.

The Douglas Chamber of Commerce went on record as one of their first major objectives this year to promote a paved road to the Chiricahua National Monument.

Visitors show a gain over last December. The main reason is that we had 69 CCC enrollees from SCS-34 A, Rucker Canyon, Arizona.

VISITOR STATISTICS

	Visitors	Cars	Out of State	No. of States
1938	272*	62	72	19
1937	231	67	89	21

*69 CCC enrollees from SCS34A, Rucker Canyon

EDUCATIONAL STATISTICS

	Trips	Attendance	Time	Total Stay
1938	36	188	2620 min.	9310 min.
1937	19	83	1147 "	7386 "

National Park Service officials were: Jack Haile, CCC Inspector, and Ranger Egernmeyer of Casa Grande.

Unusual visitors were four girls that hitch-hiked from Douglas. It was necessary for the custodian to deliver them back home after working hours. It is believed not many monuments are so popular that girls will travel 70 miles to see them. If I was a bit younger, you might say what McKinney is thinking.

The Whitetail gate was padlocked and keys given to local property owners in and around Hilltop. Signs were placed at both ends of the road warning that the road was closed. Everybody concerned appeared pleased at the way it was handled--at least no complaints have been received.

Other signs have been made and placed at temporary locations until permanent sign plans are received.

The laundry room was given a fresh coat of paint. Two temporary tent structures were removed from the camp ground.

The slack visitor period has given us an opportunity to do a little general cleanup. The Lee boys killed a lion south of the monument on December 6. They stated this made the 91st lion they have killed in the Chiricahua mountains in the past eight years.

*****SWI*****

CHIRICAHUA CCC

By Wm. Stevenson, project
superintendent,
Douglas, Arizona.

Three 25 man crews have continued on the Bonita highway back-sloping project this month. Four hundred square yards of rock banks were sloped one-half mile north of the Sugar Leaf truck trail intersection and materials were used for surfacing. Four hundred fifty square yards of banks were sloped one-quarter mile west of Bonita Park and the materials were used for road surfacing and for landscaping rock fill slopes. Two hundred square yards of banks were sloped near the headquarters area and materials were used for landscaping in the vicinity of the headquarters parking area. Coarse materials were utilized in borrow pit elimination.

One half mile of Bonita highway was resurfaced, and culvert basins and ditches were cleaned.

Grading and walks were completed for the Administration Building.

The carpentry crew completed new truck seats and has now resumed painting on the Administration Building.

Eighty cubic yards of stone were removed from the quarry this month.

Elmer C. Gipe was entered on duty as Mechanic, November 28, 1938.

*****SWM*****

CASA GRANDE

By A. T. Bicknell, custodian,
Coolidge, Arizona.

Visitors this month, 2,605; since October 1, 7,894.

WEATHER

Days clear	11	Max. temp.	87
Days partly cloudy	9	Min. temp.	21
Days cloudy	10	Mean max temp.	72.1
Precipitation	1.52"	Mean min temp.	36.6

This has been a very peculiar month, as regards the weather here at Coolidge. During the period of December 11 to 22, inclusive, rain fell on eight days--the greatest precipitation in 24 hours occurring on the 16th, when .70 inches of rain fell. Then on the 17th; a very heavy fog covered the ground until about 10:30 A.M. Three nights; the 22, 23, and 24, brought heavy frosts--the first for this year. Truthfully, one cannot give the direction of the prevailing wind, as it blew from the east on eight days, from the west on seven days, and from the southwest on five days; the remaining ten days of the month it blew

CASA GRANDE (CONT.)

from any and all directions.

GENERAL

Visitor travel this month is down somewhat from that of December, 1937. A total of 2,605 people came to the monument during the month, as contrasted with 2,931 visitors last year. Travel also showed a drop of 213 visitors from November, which is no doubt due to the bad weather during practically one-third of the month.

Davy and Corky Jones showed up at Casa Grande on the first, ready to begin the winter tour of duty here. Due to shortage of houses on the monument, they are living at Vah-Ki Inn, just across the canal.

On December 7, Assistant Superintendent Miller, accompanied by Rangers Jones and Eggermayer, and clerks Petrie and Gastellum, drove up to Phoenix to hear a lecture by Superintendent Charles J. Smith of the Petrified Forest National Monument.

Custodian Bicknell and Mechanic Stonchocker made an official trip to CCC Camp NM-5-A, at Flagstaff, on November 30, for the purpose of delivering heavy equipment transferred from the Chiricahua camp. They returned on December 1.

Ranger Eggermayer left December 2, to return the trucks borrowed from CNM-a-A, and returned the following day. He reports a very enjoyable morning spent in seeing the Wonderland of Rocks in company with Custodian Fish and Project Supt. Stevenson.

OFFICIAL VISITORS

During the month, the following NPS personnel were visitors at Casa Grande: Jack Haile--State Inspector CCC; Gilbert Philp, Ranger from Tonto; Charles J. Smith, Superintendent of the Petrified Forest N. M., and Mrs. Smith; Jesse Nuesbaum, Superintendent of Mesa Verde N. P.; W. E. Austin, Ranger from the Grand Canyon, and Mrs. Austin; Ronald F. Lee, Supervisor of Historic Sites and Buildings; Herbert Maier, Acting Regional Director; M. F. Christianson, Regional Recreational Area Planning Division, Region III.

INTERESTING PEOPLE

Other visitors worthy of mention were: Mr. C. E. Persons, Regional Trial Investigator of the National Labor Relations Board; Mr. and Mrs. M. F. King, the parents of Park Naturalist King, and their daughter Mrs. Edward Shirley; Mr. Frank A. Schilling, an engineer who had been here during the Fewkes excavations of 1906.

Another visitor, worthy of mention in a different manner is the woman who complained to the custodian of the lack of a heating stove in the ruins, so the visitors could enjoy their trip through the building, rather than be "half frozen to death" as she expressed it. We sincerely hope she does not come back next July, as it is certain that

CASA GRANDE (CONT.)

we will not have an air-conditioning device to cool the building.

USE OF MONUMENT FACILITIES BY THE PUBLIC

Of the 2,605 visitors who came to the monument in 887 cars, 2,146 were contacted on guided trips through the ruins. Three hundred twenty nine parties were conducted through the ruins. In the museum, 228 parties were contacted. In the picnic ground, 311 people, making up 52 separate groups, held picnics or otherwise made use of the campground facilities. Two more of the groups of American Airlines officials visited the monument on the first two Wednesdays of the month. This completes these tours, and we sincerely hope the various groups enjoyed their stays in the "Sun Country."

Other special groups visiting the monument during the month were a party of six speech class students from the University of Arizona, and a group of 31 Pima children and five adults from the Indian Schools at Blackwater and Phoenix. These last picnicked, went through the ruins and museum, and were shown colored movies by Jr. Park Naturalist Dodge.

In all, visitors from 43 states, the District of Columbia, Hawaii, Alaska, Canada, Mexico, Germany, Switzerland, India, England, Brazil, Venezuela, and Fijuana, British Colonial Mandate, signed the register book during the month.

NEW EQUIPMENT

During the month, 12 Flamo cabinets were purchased, to house the unsightly Flamo tanks used for cooking, and to better protect the installations.

MUSEUM

A new exhibit of Pima pottery and basket-making materials and methods was made and installed by Ranger Jones. While this is only a temporary exhibit, it is felt that it will graphically illustrate the processes involved in a very much improved manner.

CASA GRANDE SIDE CAMP CCC

Job. No. 50--Shop: Finished conduit and wiring; installed overhead track; windows hung; and inside walls plastered. Man-days expended 67.

Job No. 51--Warehouse: Plastering watchman's quarters and office finished; the inside walls of storage room also plastered; installed framework for shelf-bins; all locks installed; hardware for the windows intalled; painting begun in watchman's quarters. Man-days expended 70.

Job No. 52--Oil House: Locks installed; the turbine ventilator has been received, but is not as yet in place; also installed two mercury

CASA GRANDE (CONT.)

electric switches. Transite shelving is not as yet received. Man-days expended--1.

Job No. 53.--Guide Service: Enrollee Guide Sheffield was replaced by Scott Hall; Sheffield took over Scholz's work for the naturalist department as Scholz was returned to the main camp for discharge. Max Jaso replaced Savage as Enrollee Mechanic's assistant. Man-days expended--134.

Job No. 54--Cleanup: Ten man-days were expended on general monument maintenance and clean-up.

Job No. 55--Making adobes: Due to several days of heavy rains, several hundred adobes were ruined, making it necessary to replace those already made for use in the wall of the storage yard and equipment shed. Man-days expended--55.

Job No. 60--Power Line: This job was completed, but no man-days of CCC labor is chargeable, as the hook-up was made by the Indian Service.

Job No. 62--Equipment shed: The rear walls were finished to the plate line; the plates set; the caps poured; the front lintel beams set in place; and three of the steel trusses for roof support set in place and anchored. Man-days expended--39.

Job No. 63--Yard Wall: No actual construction work was done, but 11 man-days of labor was expended on hauling of materials.

Six new men: Barnes, Bybee, Collins, Andrews, Martin, and Tevebaugh, arrived from NM-2-A on the 17th, to replace Scholz, who was returned to the main camp for discharge, and Bryant and Wilder, who finished the carpentry work and were likewise returned. Three of the new men were sent for replacement of the three men who were to take their six-day Christmas leave, beginning the 22nd. Savage was discharged as of November 26, and was replaced by Jaso, arriving on December 3.

On Thanksgiving Day, a special turkey dinner was arranged for the men in the camp.

Safety meetings were held on December 9, 16, and 22. All men in camp attended.

One man, Julian Rocha, was in the hospital at SP-6-A, from December 9 to 13, inclusive. No lost time accidents occurred during the month.

Eight camp inspections were held by army officers and supervisory personnel from the mother camp,

*****SWL*****

CANYON DE CHELLY

By Ted Cronyn, custodian,
Chin Lee, Arizona.

Visitors this month, 48; since October 1, 227.

WEATHER

The last days of November were clear and cold, with a minimum of three degrees above zero. The first half of December was clear and mild, with a minimum of plus eight, and several days that hardly got below freezing. The last half of December was pretty much cloudy, with precipitation on eight days totaling 0.83 inch. The dry weather apparently did no harm to agriculture in this region. On the contrary, it allowed the Navaho Service to work steadily ahead with the clearing and leveling of land to be irrigated from Chin Lee Wash, northwest of the monument. Now if we get plenty snow in the high country, it will be good for this new farm country and for the Navahos in the Canyons, although interfering with travel up the Canyons in the spring.

TRAVEL

The count of visitors for the month shows a sizeable increase over December of 1937 and 1935, when four and 23 were the respective counts. Good weather and good road conditions helped through most of the month, and the count was boosted by reported visits from interested members of the Navaho Service personnel at Window Rock, the administrative center. It is hardly expected that a similar increase over previous years will occur every month. Of the 48 visitors to the monument, 45 were accompanied on field trips, and 37 were in the office to look at photographs, read articles, and receive verbal information.

MAINTENANCE

During the month, the housing and the concrete base of the water pump were gone over thoroughly. New bolts, nuts, and lock washers were put in place. The top of the concrete base, previously cracked and partly loose, was chipped out, and a new concrete top was poured. A considerable quantity of inflammable material was removed from storage in the pumphouse, but the question of where else to put it became a problem. We are pretty short of storage space here.

GENERAL

Late in November, the Navahos held several fire-dances in this area. I went over to the one at Rough Rock, on its closing night, and saw a most interesting sight. It was one of the coldest nights of the year to date, with the thermometer down to five above at Chin Lee

CANYON DE CHELLY (CONT.)

and probably colder than that over at Rough Rock. Nevertheless there were between 1,500 and 2,000 Navahos in the circle around the big fire. Plenty Pendleton blankets and many-gallon hats, dances until 2 A.M., and believe it or not, hot dogs in split rolls, sold from the rear of a covered wagon.

On December 22, the Navaho Service put out a big feed for the Indians of the vicinity, at the Chin Lee School. This reporter went down to see the sight and help dish out the chow. Seven hundred were fed, but probably a couple hundred of them were repeaters. The men weren't dolled up much, but the women and girls sported all their velvets, silver and turquoise.

Surface water started to run out of the mouth of the canyon on December 9. What was doubtless the year's last auto trip into the Canyon was made on December 4, when a party of Forest Service and Indian Service folks were accompanied up to the White House and a short distance up del Huerto. Water and ice and frozen banks made the going pretty tough.

The inventory that Faris and I made was checked against the Headquarters list, and the differences were not too great.

I made a special trip from the Fort Defiance road over to the de Chelly rim at Spider rock. Picked up a Navaho to show me the route to follow to hike over there, so can take tourists next summer.

PARK SERVICE VISITORS

Herb Maier and Jack Hails dropped in one day. They looked over the residence and its surroundings and went all through the house, which was in the proverbial condition of bachelor quarters. (remember that when Mr. Damaray went through the Ranger quarters at Tumacacori, he remarked "Just camping, eh?") Later these visitors went out the Fort Defiance road to the First and White House Overlooks, with the custodian along as chauffeur and guide. These gentlemen were both greatly impressed with their brief view of the Canyon. Mr. Maier was particularly outspoken in praise of the monument.

Now on the other hand, Cecil Doty, the Regional Architect, was announced but never did come here, so far as I have been able to discover. A wire was phoned on a Sunday morning, and I looked for him all day. In the afternoon I went out with monument visitors, leaving a note for Doty in case he should turn up. No sign of him, no word. Try again, Brother Doty; this is a good place. Sorry to miss his expert advice on chinking the cracks of the Residence building; sorry to miss seeing the old Chickasa Warhorse himself.

VISITORS FROM OTHER SERVICES

Mr. Stewart, Deputy Supervisor, Forest Service, Springerville, N.M. and his family. Mrs. Croxon and children, Window Rock, Ariz. Mr. Croxon is head of the Navaho police unit. Doctors Siegel, Johnson, and McDowell of the Navaho Service at Window Rock and Fort Defiance.

TUMACACORI

By Louis Caywood, custodian,
Box 797, Nogales, Arizona.

Visitors this month 1,723; since October 1, 4,014.

Winter travel this year seems to be coming earlier than in years past. For the month there were 1,723 persons who came in 466 cars. Of this number all but 61 were contacted by guided trips through the old mission church or by visiting the museum. 1,723 is an increase of 877 over December, 1937.

WEATHER

The days were clear and warm until December 15, when rains and winds began which lasted until the 23rd. Much needed rain fell and was greatly appreciated by the cattlemen of this county. Since the rain the days have been sharp and clear.

PARK SERVICE VISITORS

Asst. Supt. Lloyd and Ranger Harthan Bill of the Grand Canyon National Park visited the monument on November 25.

Custodian and Mrs. Bicknell from Casa Grande National Monument were here on November 25 with friends.

LECTURES

Father Victor R. Storer, Tucson, gave an interesting illustrated talk at the Tumacacori Museum at 8:00 P.M. on December 9th. A group of 54 local people attended. His subject was "The Spanish Missions of Arizona". Both lantern slides and movies were used. Much favorable comment has been received on this lecture.

The custodian gave three lectures during the month. The first, on December 13, was given before 16 members of the Lions Club of Nogales on "Civil Life in New Spain During the 17th and 18th Centuries". Two lectures were given at CCC camps, one at Madera Canyon before a group of 54 on December 14 and the other at Peña Blanca, near Nogales, before a group of 130 on December 18. The Madera Canyon camp near Continental is a spur of the Peña Blanca camp. These two lectures were illustrated by lantern slides and were on "The Senora Missions."

MUSEUM

Handles have been mounted on Cases 8 and 13A so they can be moved. By moving Case 8 out of its niche, the lights for Cases 4, 5 and 9 can be cared for. When the electric map is set up, the mechanism will be placed in a closet beside Case 8 and can be reached by the re-

TUMACACORI (CONT.)

removal of Case 8 from its niche. By moving Case 13A, the lights in Cases 13B and C, 12 and 11 can be serviced. Cat walks were previously made by the custodian over Cases 5 and 12 to reach the lights of the dioramas of Cases 4 and 11.

The View Room and the Kine Room were cleaned and opened to the public. The church model which has been in the Lobby is now in the View Room so that visitors may compare the model and the actual Mission buildings. This makes a convenient place to explain how the original Tumacacori pueblo and church might have been about 1825.

The carved entrance doors of the museum were partly refitted because of sticking due to the rains.

The exhibits, although still incomplete, continue to draw visitors. There has been no advertising except by those visitors who have seen the exhibits. Some parties have returned as many as four times. Others bring friends or direct them here. Not long ago one of the motor-tours drivers out of Tucson must have driven into the parking area much to his party's disgust because he had to do a lot of talking to get them in the museum. I have always thought the one who payed for such a tour was right, but this time the driver was right because the party stayed a half hour in the museum and would have stayed longer but it was late and they were in a hurry.

On Christmas day an old pioneer lady from Tucson stopped in with her children on their way to Nogales. She told me that she had known Peter Kitchen and many other pioneers of this region. When she saw the mass diorama, she was so impressed that she was speechless. Finally after hearing the music play she said that seeing the model church meant more to her than anything else possibly could on Christmas day and she hoped she would live to see it again next Christmas. Happenings such as this are certainly impressive. I can't help but think how nice it would be if the people in Berkeley, who worked so hard to make these exhibits a success, could hear only a few of the many compliments that are spoken every day.

*****SW*****

SAGUARO

By Carleton Wilder, temp. ranger,
Box 2708, Tucson, Arizona.

Visitors this month, 1,500; since October 1, 4,300

TRAVEL

Visitors this month have been about as numerous as they were during November. I believe about 1,500 people entered the monument during the month. Of this number, 241 were contacted at the cactus garden and spent time at the displays. Few local visitors came to the monument, usually coming to the cactus garden only when showing out of state visitors the sights.

SAGUARO (CONT.)

EQUIPMENT

During the month, several repairs were made on the Dodge curtain truck. Rear spring shackles and steering arm and connections were installed. The brake cylinder was overhauled.

SIGNS

The large sign for the south entrance was put up, and smaller directional signs were placed throughout the monument.

GENERAL

The county road connecting Broadway in Tucson with the south entrance to the monument was completed. Apparently, this road is carrying quite a bit of traffic.

The CCC work program has been approved, I understand, and I will have the assistance of two boys in checking visitor travel, beginning about the first of the year.

On December 17, a disreputable character was reported to me as being on the monument, near the north gate. Upon investigation, he turned out to be an unemployed negro youth who had come south for the winter months. I offered to take him back to the main road, but not wanting to turn him out in the desert, finally took him in to Tucson and turned him over to the police.

One stray dog was disposed of.

During the month the contact station, located at the entrance to the cactus garden and near the cabin, was completed. It provides a place to meet visitors, have them register, and to acquaint them with the plants that they will see in the cactus garden. The displays at present consist of a cross-section of a saguaro and an upright section of the skeleton of a saguaro. These exhibits have been of interest to almost every visitor. Charts and labels will be added to the display so that it will be self-explanatory, and of use to the visitor in the absence of a guide.

Most of the plants in the cactus garden have been identified, and a start has been made on replacing some of those which are not in good condition.

Early in the month I paid a visit to Dr. J. G. Brown of the Department of Plant Pathology, University of Arizona. He stated that from five to 15 percent of the saguaros in this region are infected with crown gall. He has a graduate student working on the problem of the occurrence of this disease in the saguaro, and hopes to have some definite information later in the winter. I assured Dr. Brown of full cooperation, and may be of some definite assistance to him as the study progresses.

The route of the cactus trail has been tried out on several parties, and I believe such a trail can be successfully established

SAGUARO (CONT.)

here. It includes a saguaro with a beehive in it, a night blooming cereus growing in place in the desert, several bird nests in growing cholla, a prickly pear growing in a saguaro, and two unusually interesting ack-rat nests. The trail also provides an opportunity to point out many of the plants typical of the desert, but not found in the cactus garden or in the immediate vicinity of the cabin.

VISITORS

A party of American Airlines employees from the East visited the monument in company with Don Young, Tucson representative.

Dr. and Mrs. John E. Holloway, accompanied by Dr. J. G. Brown of the University of Arizona, visited the monument. Dr. Holloway is head of the Department of Botany, University of Otago, Dunedin, New Zealand. This was his first trip to the United States, and he was especially interested in the flora of the desert.

Mr. and Mrs. Marvin Frost, winter visitors in Tucson, have been frequent visitors to the monument. The Frosts spend their summers near Acadia National Park, and have frequently shown color motion pictures at campfire talks there.

On December 24, Bruno Lessing, famous journalist, paid a brief visit to the monument. On December 2, Tommy Onstott and Miss Grace Johnson visited with us for part of the afternoon.

*****SWI*****

WALNUT CANYON

By Paul Beaubien, Jr. archeologist,
Flagstaff, Arizona.

Visitors this month, 333; since October 1, 1,825.

Forty-one parties were contacted at the observation point, and 28 at the ranger cabin. Park Service visitors were Charles Carter, J. H. Tovrea, Matt Dodge, J. W. Brewer, Cecil Doty and Jack Hailo. H. B. Hemmon and Jack Diehl were here, but they did not stop at the ranger cabin.

The weather was fine the first part of the month, but snow on the 19th and 20th just about finished the visitor contacting for the winter. The moisture was much needed however.

During the month, six trips were made to Wupatki. Samples of water from Heiser and Wupatki Springs were sent to H. B. Hemmon's office. On the 7th, 17 Gambel Quail were released at Wupatki Spring. Eleven of these quail were seen by the CCC guides, on the 18th. On the 9th I accompanied J. V. Lloyd, acting superintendent of the Grand Canyon Nat'l. Park, and Mr. A. L. Ivey, president, Virginia Carolina Chemical Company, on a trip through Wupatki and Sunset Crater National Monuments. Mr. Ivey is a close friend of former Director Albright.

WALNUT (CONT.)

On the 20th, I was at Wupatki when the CCC boys began work on the water system and the custodian's residence. This latter trip will be remembered for the amount of snow encountered. Going in in the morning Mr. Parker and I estimated that there were six inches on the ground at Citadel Ruin, and it was snowing as we left. Because of road conditions, I did not go back on the 24th for the travel statistics, but will send them next month. The Sunset Crater road is blocked by snow.

A little more of the trail dirt has been screened at Walnut. Twelve bird bones were found, they have been identified by Lyndon L. Hargrave of the Museum of Northern Arizona. Ten bones were from one individual turkey, one was from a raven (*Corvus corax*), and a broken humerus belonged to a crow (*Corvus brachyrhynchos*). The latter seems to be the only crow bone on record from a prehistoric site in the Southwest.

To add a note about Gambel Quail at Wupatki, Clyde Peshlakai says there is a flock of 14 at Black Falls, a large flock at Coyote Spring, and that once in awhile he sees a few at Heiser Spring. I have seen, in the vicinity of Coyote and Heiser Springs, a few car loads of rabbit hunters who also have been interested in quail.

*****SWI*****

CHACO CANYON

By L. T. McKinney, custodian,
Chaco Canyon, New Mexico.

Visitors this month 78; since October 1, 911.

Well, here goes the last bit of Chaco news for this old year of 1938. She has been a grand old year, but lets hope for a better one for the year of 1939, and best wishes for yourself and the others of the Southwestern Monuments for the coming New Year. I hope that old Santa Claus brings each and every one a sock full of nice presents.

I haven't been out to all of the ruins this month, but I have been to Pueblo Bonito, Chetro Kettle, Del Arroyo, Pueblo Alto, Tsinklitsin, Penasco Blanco, Hungo Pavi, Una Vida, Casa Rinconada, Kinkletsei, Wejiji, Kinya-a, and Kinklizin, also Talus unit #1, and find them in the following conditions: Kinya-a shows a few places where stone has fallen since a year ago; haven't noticed any place where pot hunting has been done. However, visitors continue to loosen the wires where they have been climbing over the fence.

Kinklizin looks pretty good since Gordon did quite a lot of work there several months back. There are several more places that need repairing, but nothing that is in bad need for a while, as Gordon got the hot spots. Kinbinola--I haven't been to this within the last few months.

CHACO (CONT.)

Penasco Blanco is still suffering quite a lot; there have been several pieces of wall fall since last winter and it certainly needs some attention.

Tsinklitsin is still being damaged by the west winds, also a few pieces of wall have fallen since last winter.

Hungo Pavi is still crumbling away very rapidly, which is certainly a shame, for it is only of the larger ruins in the monument, and there is some nice masonry in this ruin.

Una Vida is another of the major ruins that needs some attention badly.

Wejiji must have some attention at once, no need of stating the condition of this ruin; as I have taken every Brass Hat that has come around, up there to look at it, so they all know its condition.

Pueblo Del Arroyo has begun to look like there were some hopes for it since Gordon has been working on the hot spots. There is still lots to be done.

Casa Rinconada is still in pretty good shape, as the School of American Research did quite a bit of work on it some two years back.

Kinkletsoi could stand some repair work on the walls, especially wall capping. The Chaco Wash is still creeping closer and closer to this ruin each summer. There should be something done to prevent this.

Pueblo Bonito is looking pretty good after the work on it the last 18 months. It will take some time to get this ruin under control and could be kept that way with two or three men working at ruin repair the year around. I believe it is much easier and a whole lot cheaper to keep them in shape than to get them in shape.

Threatening Rock measures 4-17/32 inches at the east, 4-24/32 inches in the center, and even four inches at the west end. Following are the measurements of December 1937: 2 5/8 inches east, 2 11/16 inches center, and 2 9/16 inches west end. Since Carolie and I measured this rock yesterday, she has moved all her dishes off the shelves and took all the cups off the hooks, pictures off the wall, etc. I guess we had better make plans to move Pueblo Bonito out another hundred feet, because I challenge any man in the Service to say that he knows what this rock is going to do. Why in heck don't we stop this movement? Then we will know it will not destroy the most wonderful ruin on the North American Continent. Or shall we sit and argue about it until we get the ruin repair, at considerable expense, then let the rock fall some cool night and tear down the work in five minutes that it took the Bonitians about 210 years to do and us four or five years to repair. Let's fix it now!

The Soil Conservation Service is still very much interested in our interest here in the Canyon. Could we get interested in their interest here and help them out with their work? This Chaco Wash has widened some 200 to 300 feet in the last 90 years, and at the present time is within 20 feet of two of the major ruins. Where will they be at the end of the next 90 years? Maybe our sons would like to see these as we see them now.

CHACO (CONT.)

Stanley Tanner and family moved from the Chaco Canyon Trading Post on December 23. Andrew Jackson Lavender (Jack) will operate the post for Mr. Arthur B. Tanner after the first of the year. We all welcome Jack and Amelia Back to the Canyon again.

We have had .57 inch of precipitation during the month, .41 inch more than December last year. About one inch of snow fell but didn't stay on the ground very long. There are still patches on the northern slopes. The maximum temperature for the month was 66 degrees and the minimum was 5. There were three bad winds this month, eight clear days, three cloudy ones, and the balance partly cloudy.

I guess the visitors have gone south with the geese and other birds, because there have been only 78 here this month, from the following seven states: Arizona, California, Florida, Idaho, Massachusetts, New Mexico, West Virginia, also Washington, D. C., and Canada. Ronald F. Lee, of Washington, D. C., Aubrey Neasham of Santa Fe, John H. Diehl of Santa Fe, Dale S. King of Coolidge, Arizona, Herbert O Brayer of Albuquerque, and Mike Gallegos of Santa Fe were official monument visitors this month. Carroll Miller, Mrs., and son Joe, were also here during the month. I almost forget Cal had been over, until I got the grocery bill.

*****SWI*****

MOBILE UNIT

By Gordon Vivian, foreman,
Chaco Canyon, New Mexico.

Since our last monthly narrative complaint about the weather, we have expended 399 man days here in the Chaco and at Aztec, divided among the following five jobs. All camp and maintainance details have been pro-rated among them.

Drainage, plaza and rooms, Bonito	133	man	days
Wall patching, Bonito	131	"	"
Support walls, minor ruins	35	"	"
Waterproofing rooms, Aztec	25	"	"
Replace kiva roofing, Aztec	75	"	"

Division of the work this month has depended a lot on the state of the weather. During warm spells when it was possible to lay stone, we pushed the patching and the laying of the bitudobe roof on the little kiva at Aztec. When the weather bore down, we put in our time moving dirt on the drainage job. We got in quite a bit of rapid fire changing about.

Under the disagreeable-weather-drainage program for the south tier of rooms, we have continued removing debris from the exterior, working from the east lower end toward the center where this work will connect with that done last winter on the southwest side. Six hundred yards have been removed this last month and worked over for building stone, the stone being piled for future use and the remaining

CHACO MOBILE UNIT (CONT.)

dirt spread on the monument approach road to the north. This work along the exterior should be completed within the next two weeks. The drainage crew will then be shifted to the east plaza work within the ruin.

All wall patching this month has been done in preparation for drainage of the east plaza. Along the north side of the plaza, kivas O and N were repaired and on the west, room 17 as the first of a series of rooms that, with the great kiva, form the west limits of the area.

Of the kivas, N appears to have been excavated and then both partially repaired and refilled. The fill in the interior is some four feet below the level of the plaza outside. The masonry of the north half of the wall circumference is distinct from the small amount which prior to repair was visible in the south. This part appears to have been rebuilt to keep the footing under the higher room walls directly behind it. The greater part of the south half of the wall was missing and material from the higher plaza area directly to the south had washed in over the intentional fill. Fifty yards of this material was cleared away to expose the remaining portions of the south wall and the ventilator. This ventilator shaft is perfectly round and, unless I am too badly mistaken, this is a rare bird in the Chaco. After clearing, the wall and shaft were rebuilt to bring them above the level of the plaza. Twenty eight cubic yards of stone was laid on this job.

Room 17 is one of a series of rooms which divide the plaza into east and west halves. The rooms belong to a late building period, and portions of it are superimposed on and set out of line with earlier walls. To date, four square yards of masonry have been laid patching the top walls and building out parts of the lower ones to strengthen support of those above. In addition to the masonry laid, 90 stub poles have been prepared for wall patching in rooms along the east side of the plaza.

The 35 man days charged to support of minor ruin walls were spent on job five at Del Arroyo where were laid eight square yards of repair to foundations. No capping was done over completed work. After we had started work on this ruin with no ground plan to follow for numbering, Mac. got us a copy of Judd's excavation plans. Our new architect foreman, Kenneth Boone, has enlarged these plans and, starting from the 36 excavated rooms, numbered all of those remaining unexcavated. In addition to the Del Arroyo plans, he has also gotten out the long delayed profile of Wijiji.

At Aztec, 75 man days had been spent on replacing the wooden and concrete roofing of the small kiva with one of bitudobe when cold weather made the advisability of laying more bitudobe doubtful, and work was transferred back to the waterproofing job. The wood-and-tar-paper roof was first removed from the kiva and the underlying concrete slab roof examined. Portions of this slab roof were badly cracked, and it was decided to remove it in entirety. With this done

CHACO MOBILE UNIT (CONT.)

and the exterior wall repaired, the dirt covering the underlying crib work was leveled up and packed to receive the first layer of the bitudobe. Immediately after laying, it was covered with dirt to prevent freezing. Due to a cold snap, it was not thought advisable to uncover it and lay the top coating, and work at present is confined to cleaning up the waterproofing job.

*****SWM*****

MONTEZUMA CASTLE

By Earl Jackson, custodian,
Camp Verde, Arizona.

Visitors this month 425; since October 1, 1,610.

During the month 24 states were represented, and three foreign countries; England, Canada, and Baja California (Mexico). Three different groups came from Canada. Visitors arrived in 113 cars, and one on horseback.

SPECIAL VISITORS

Park Service: December 12--We had the surprise pleasure of having Acting Regional Director Herb Maier and CCC Inspector Jack Haile. This was Mr. Maier's first visit to the Castle, and we spent over two intensive hours getting him acquainted with it; I say intensive, because we concentrated everything that we could about the monument into those two hours.

Other Visitors: Among the visitors were Harold Burstow and wife, of Adelaide, Australia who were here on November 24. He is publisher and managing editor of "News, Limited." November 27 brought 36 wives and family members of the Clarkdale Woman's Hiking Club for a picnic. Mr. and Mrs. Charles Kuzell were visitors. He is Superintendent of the smelter at Clarkdale. On the same day, Dr. Dyer and 19 CCC boys from the Clear Creek camp were in. On December 1 Ranger Harold Linn, of the Beaver Creek Ranger Station and Herman O. Darrh, landscape architect with Forestry Recreational Planning, were business visitors. December 13 brought W. C. Lewis and Robert W. Brost of the National Council of Visual Education.

WEATHER AND ROADS

Precipitation	3.06	Min Temp	19
Days Cloudy	10	Mean Maximum	63.16
Days partly cloudy	6	Mean Minimum	29.73
Max temp	75		

Our extremely heavy rainfall occurred between December 15 and 22

MONTEZUMA CASTLE (CONT.)

inclusive. The ground was so parched after several months complete drouth, and the rain fell so gradually that practically all the moisture was taken up by the soil, and a great amount of good resulted. The surrounding watersheds were snow covered, but not to any great depth. A foot of snow was reported on the road between Jerome and Prescott.

Until the rain, roads were very corrugated and objectionable. Since then, all approach roads, save the one now under construction between here and Cornville, have been bladed and are in good condition.

Roads over the mountains have all been accessible, with the possible exception of the route from Mormon Lake. No visitors have used that road for some time. The Oak Creek Canyon road for over a week now has been closed between 10:00 A. M. and 2:00 P. M., so blasting can be done in preparation for the paving of the final 3.5 miles of that road between Cottonwood and Flagstaff.

Beaver Creek experienced a slight rise as a result of the rains, but no floods of any moment have occurred in it or the other streams of the Verde Valley.

VANDALISM

On the Sunday when the CCC boys were in from the Clear Creek Camp, it happened that Ranger Alberts was in the Castle with a party, and I was on the grounds in front talking to some of the boys and some picknickers, when I noticed two boys huddled close together at the bole of a tree within fifty feet of us. They had practically finished carving their initials when I stopped them.

On a monument patrol just after the heavy rain, Betty and I saw where a car had turned off the entrance road just around a hill before reaching the parking area, and had driven off down into the flat near the creek at the east end of the monument, where it had no business. We tracked two people who left the car and prowled all up and down the creek, and saw that their tracks indicated actions typical of duck hunters stalking possible prey at each pool. No shells were seen, and no duck feathers, so we hope they had no luck.

MAINTENANCE, IMPROVEMENTS, AND NEW CONSTRUCTION

1. Several plumbing leaks were repaired, and a check valve on our main water line re-ground.
2. Complete clean-up around the garage area was effected, and all the old scrap lumber which could not be used was sawed up for stove wood.
3. Excess loose gravel and sand which had been thrown over the surface of part of the entrance road where the mix was too rich, was removed.
4. Two of our heavy garage doors which would not open were taken down and repaired.
5. Tool shelves were constructed in the garage.
6. Some cement patching was effected in damaged spots on the curb and syzygy wall.

MONTEZUMA CASTLE (CONT.)

7. Four young Arizona Sycamore trees were planted alongside the walkway between the comfort station and the museum.
8. Vines around the custodian's residence (soon to become a temporary administration building) were re-wired and re-strung. They serve to keep out the intense heat of summer.
9. Three more low hillside plants were set out in the back yard (to be our Nature Garden).

NEW EQUIPMENT

During the month, a number of much needed land tools were ordered and received by this monument.

COOPERATING GOVERNMENT AGENCIES

The Coconino National Forest has originated a plan for signing all roads leading off main highways into its lands or through them. Their plan would cause the removal of all other signs which might be posted at such points, condensing all information onto their signs. We think the idea is a good one, and would save us the necessity of maintaining our own signs. This means a money saving which is worth something, for the enameled metal signs we use certainly do not stand up under bullets and lassos of country marksmen and cowboys.

GENERAL

Travel has been extremely slow during the latter part of the month, partly due to the storm, but also due to the fact that tourists are not getting into the valley now. Reports of bad roads, especially through Oak Creek Canyon, must deter a lot of them. The fact that travel exceeded that of December a year ago is due to the large picnic party we had early in the month, and to the group of CCC boys.

Business men state that conditions are deplorable in the valley. The guest ranches on Beaver Creek, usually doing a thriving business at this time of year, are having practically no guests, and they report that ranches and resort hotels throughout the state are almost unanimously in the same fix. Dealers in curios are quite hard hit.

The year end finds this monument looking ship shape, and the personnel looking with enthusiasm into 1939 and the new houses that are projected for that year, and the use of the old residence as an administration and museum building. We hope some decision is reached soon on stabilization of Montezuma Castle. Keeping that building in good repair is of far more importance than any other single developments here, and while we are not lacking in appreciation of other developments pending, we feel bad every time we look at that faulty underpinning on the Castle's first and second floors.

*****SMI*****

NATURAL BRIDGES

By Zeke Johnson, custodian,
62 $\frac{1}{2}$ So. Main St., Salt Lake City, Utah.

Visitors this month 40; since October 1, 154.

I haven't much to report this month as I haven't had any speaking engagements, although I have several coming up soon, but I am talking about the Natural Bridges and San Juan County every day; I mean the Four Corners country. Everyone that meets me wants to know about my country, so I am trying to put over the fact that it is a good country.

I am very glad to report that Mrs. Johnson and Zeke are enjoying the best of health and that Mrs. Johnson is again working in the L.D.S. Geneological Library where she loves to be, and where she has worked for over 15 years; part time since 1929.

We had a very enjoyable trip to Boulder Dam, then on to Los Angeles and up the coast to San Francisco, and back to Salt Lake City by way of Reno. When I got back to Blanding I found almost summer weather there and cars were still going out to the monument. It was cold and wet when we left there November 21, but roads had dried up and people were going out. There were seven high school professors out on December 11, and others went out until December 16 when it snowed again.

It was a mistake for me to leave when I did, and I wish that I were on full time. Then, when it looks like I will be snowed in, I can send my car in and stay out and work trails for a few weeks or until things freeze up, and come to Blanding on horseback. I could keep two or three head of horses out there in the fall for that purpose. I was told that 30 or 40 people had been out there after I left, and I hope that I can stay out there after this as long as I can work trails. Then I could go back in March and work again for trails over in the canyons surely need to be repaired. Some places they are in bad condition, and I hope that I can stay there next fall and return in the early spring to get them fixed up at a time when there are practically no visitors. Could you raise a little money for me in March and let me take out a man and work in the canyons? Horses and their feed will cost you nothing, and the work could be done so much cheaper then, as we would camp over in White Canyon and be right on the spot where the work was to be done.

Now about the pick-up truck! I sure enjoyed driving it and never had one flat, and the only time I had any trouble was when the shackle broke that I told you about. But I never had any brakes all summer although I tightened them up as much as possible. I always drove very carefully and got along all right, but I must have the brakes relined before I drive it any more. (Of course I am hoping for a new one). I also need a lot of signs. Many of these I am using are ones I made myself. They do the job, but are not what I should have. I need several different kinds; can I have them?

I was glad to get the notice that you sent me to be posted by the register, and I will put it in its proper place when I get back in the spring. I am wondering about the films that I sent you of the

NATURAL BRIDGES (CONT.)

trail. Were they any good?

Mrs. Johnson and I are enjoying the holiday season very much, and hope that all the Southwestern Monuments folk are doing the same. We are both well and longing to get back on the job again.

*****SWM*****

CAPULIN

By. Homer T. Farr, custodian,
Capulin, New Mexico.

Visitors this month 500; since October 1, 4,600.

In reporting the happenings in and around this monument for December, I find less to tell than usual. Today, when the thermometer stood just above ten above, I was working on the cabin and I noted several cars of visitors. I find they come even in zero weather.

The weather has been very cold most of this month, but there have been no bad storms. We have enjoyed a couple of nice snows this winter, and the ground now is all covered with about three inches of snow. All roads have been kept open including the one on the monument as well as the trails. I believe I have worked a little harder this winter than common in keeping roads and trails clear.

I am sorry to report that our robins and mountain blue birds have all left us and for this reason we may look forward to a colder winter than the last one.

Our deer, bobcats, and coyotes never leave us and we still have an over supply of porcupines.

*****SWM*****

EL MORRO

By A. R. Budlong, custodian,
Ramah, New Mexico.

Visitors this month, 47; since October 1, 436.

During December, trips taken were rather short, the weather being somewhat threatening at times, the north side of the rock cold, and the cabin and grounds fairly well torn-up, getting everything ready for winter. Our 47 persons arrived in 19 automobiles.

WEATHER

This was surprisingly mild, with minimum temperature of 4 degrees on the 14th, and maximum of 61 degrees on the 8th. We had a few light

EL MORRO (CONT.)

rains and snows--snow falling on five occasions to a total depth of three inches. Total moisture during the month was .66 inches.

WATER

That word sounds somewhat familiar, but we still wonder just what water may look and taste like. The well drillers arrived at the monument December 5, and early on the morning of the 6th the custodian cut the east fence, marked-off a temporary road, and the rig and equipment were moved to location. Drilling began at 1 P.M., December 8. Work was shut down the evening of the 22nd, and the drillers went home for Christmas. The hole was then down to 405 feet. While a slight seep of perhaps a gallon an hour was encountered around 200 feet, about the only water we have seen so far has been rain and melted snow. We are now awaiting an inspection of the cores by one of the engineers or geologists before proceeding further with the drilling.

INSCRIPTIONS

During the month moulds of two more Spanish inscriptions were made with the latex moulding compound, and fine impressions obtained--one of the Ramon Garzia Juldo inscription of 1709, and one of the 1636 inscription of Juan de Archulota and others. Other moulds will be made when we get more warm days.

At present the custodian is cleaning the rock surface of dust and silt around some of the major inscriptions, preparatory to making some photographs desired by the Regional Office. Pencil is not used in marking these inscriptions, since even a soft pencil will scratch the soft stone. After numerous experiments, the custodian has found that Rising Sun Stove Polish, mixed with water and applied lightly with a small sable-hair brush, suffices to make the inscriptions perfectly legible from the outside of the temporary fences in front of the inscriptions. A detailed report on the marking of the inscriptions will be sent to your office in the future.

VISITORS

Park Service visitors arrived on two occasions. The first group, on December 15 on their way to the Shalako at Zuni, consisted of: Dr. Gould, Jack Diehl, Erik Reid and Aubrey Neasham of the Santa Fe office; Mr. Ronald F. Lee of Washington, Dr. J. F. Zimmerman, Dr. Donald Brand, Mr. Herbert O. Brayer, Mr. Mike Gallegos, and Dale King. After a light lunch and a quick trip around the inscriptions and trail, they went to the Shalako. And then it rained and snowed all night. We hope they had no mishaps on the road. The second group consisted of Mr. Herbert O. Brayer and a group of Forest Service officials: Messrs. Hunt, Hughes, Allen, and Wade of Albuquerque.

GENERAL

More preparations for winter have been made. Two loads of sawed stovewood have been purchased; a quarter of beef, many green vegetables, and more canned goods. The cellar and cabin have been completely rearranged inside and out; grounds cleared and more earth banked around the cabin, and we are ready for hibernation, if necessary. Snowshoes and skis are all in order.

We also should mention--though it is hardly an official matter--that Miss Rebecca Lopez, of Albuquerque, is spending the Christmas holidays with us. Miss Lopez is two years old, and we are indebted to the St. Anthony's Orphanage in Albuquerque and to the kindness of Dr. Radcliffe of Belen for making her visit with us possible.

*****S.M*****

ARCHES

By Harry Read, custodian,
Moab, Utah.

Visitors this month, 65; since October 1, 220.

BOUNDARY EXTENSION

With the addition of 29,160 acres to the original area of 4,520 acres, Arches National Monument now becomes one of the greatest of the southwestern group. With a total area of 33,680 acres in which are located no less than one hundred arches, windows and natural bridges as well as innumerable monoliths, pinnacles, balanced rocks, and grotesque forms which have been eroded from the basic red sandstone, Arches National Monument now has so much to offer that I feel safe in saying that no one knows the extent of its features.

Much credit is due to the officials and employees of the National Park Service and to the "wheel horses" of Moab for their untiring efforts to bring about this extension which makes development of the monument possible.

PRESIDENT'S LETTER

Dr. J. W. Williams of Moab received a personal letter from President Franklin D. Roosevelt last week. The President highly congratulated Dr. Williams for his forty years of devotion to the conservation of the Arches region and other outstanding areas in Utah and the neighboring states of Colorado and Arizona. The pen with which the President signed the proclamation was presented to Dr. Williams.

ARCHES (CONT.)

WEATHER AND ROADS

For the most part December has been pretty mild. We have had some snow which melted quickly. The temperature has been moderate for this season, the lowest recorded being 12 degrees above zero. The ground has not been frozen except a very thin crust which always thaws early in the day.

The temporary road into the monument is in fair condition and many persons have visisted the monument this month. The small amount of snow which we have had has helped to keep the sandy spots moist and well packed.

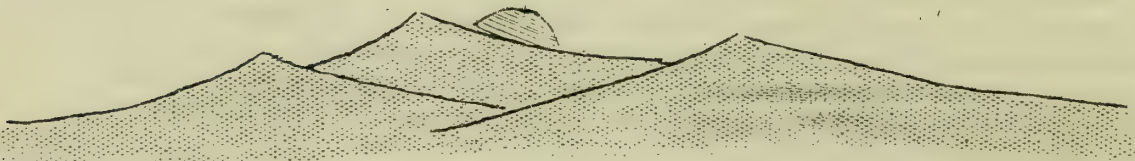
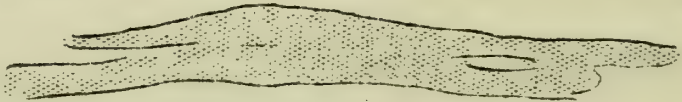
HIGHWAY CONSTRUCTION

Bids will be opened and the contract let by the State Highway Commission in the very near future for oiling the last remaining stretch of gravel on U. S. Highway 160 between Crescent Junction (intersection of U. S. 50) and Arches National Monument. This will give us an oiled surface road all the way from points east and west on U. S. 50 to the monument. This is scheduled for completion before the busy season at the monument next summer.

WATER RIGHTS

The Commissioners of Grand County have filed on the spring which is located in the cliff at a point two hundred yards east of the south end of the Colorado River bridge. The rights to this water will be turned over to the Park Service for use in the monument. This water is excellent for drinking purposes and there is ample flow to meet all requirements of the monument headquarters.

*****SWI*****



HEADQUARTERS

BRANCH OF ACCOUNTING

By Parke Soule, chief clerk,
Coolidge, Arizona

Vouchers prepared during the month, regular appropriations	205	
Vouchers prepared during the month, CCC	150	355
Purchase orders issued, regular appropriations, Hdqrs.,	65	
Purchase orders issued, CCC	97	162
Allotment ledger sheets prepared, regular appropriations,	278	
Allotment ledger sheets prepared, CCC	91	369

Expenditures:	Total for Month	To Date
1491000 National Park Service, 1939	\$ 7,287.23	\$41,606.61
148/91000 Nat'l. Park Service, 39-38	180.00	714.39
14/1010 Roads and Trails, NPS	2,102.77	24,258.00
Civilian Conservation Corps	6,891.43	44,648.17

MAIL COUNT: Official Mail Count for December, 1938.

Official mail, incoming	- - - - -	3,343
Official mail, outgoing	- - - - -	4,241
Official telegrams, incoming	- - - - -	39
Official telegrams, outgoing	- - - - -	22
Personal mail, incoming	- - - - -	2,124

Grand total mail handled - - - - - 9,769

*****SWM*****

BRANCH OF MAINTENANCE

By F. E. Stonchocker,
general mechanic, Coolidge, Arizona.

Most of the work of the General Mechanic this month has consisted of completing the installation of the conduit and wiring of the buildings in the new utility area, in cooperation with the CCC, and in moving all the equipment to the new shop, and installing it.

In addition, minor items of repair to Headquarters' cars and equipment were performed, and the usual servicing of vehicles and equipment.

Overhaul work on Ford Pickup U.S.D.I. #10889 was begun, but is

BRANCH OF MAINTENANCE (CONT.)

not as yet completed.

One official trip was made to Phoenix during the month, for the purpose of delivering the Ford Dump Truck, U.S.D.I. #13910, to the Palmer Manufacturing Co. of that city who have contracted to repair the smashed cab-body. Another official trip was that made to NM-5-A, at Flagstaff, in company with Custodian Bicknell, for the purpose of delivering heavy equipment to the CCC camp there.

*****SW*****

BRANCH OF INFORMATION

By Dale S. King, assistant park
naturalist, Coolidge, Arizona.

PERSONNEL

Park Naturalist King spent his time in office work except for a trip December 9 through December 18 which time was spent visiting New Mexico monuments, as is described more fully below. Junior Archeologist Steen spent nineteen days of the month in the field, most of the time at Aztec Ruins National Monument on archeological consultance detail. Junior Naturalist Dodge made a four and a half day trip to Walnut Canyon and Pipe Spring National Monuments as well as Grand Canyon National Park. On this trip he accumulated certain data needed for museum planning, and distributed 95 Gambel quail, which were very kindly furnished by the Arizona State Game and Fish Commission, re-stocking Pipe Spring National Monument, a project which was approved last year.

Following is a break-down of the time spent by the various members of the staff on the several projects of this department.

GENERAL OFFICE OVERHEAD	King	Steen	Dodge
Correspondence (91 letters)	3	1	1½
Conferences and discussions			
With Headquarters staff	2		1½
With N.P.S. personnel		½	
With visiting scientists.	½		¼
Library (file, issue publ, etc.)	½		¼
Reports			
Compile and process Supt. monthly report	3¼		10¼
To Washington and Region 3			¾
Miscellaneous		2½	
Publicity			¾
Prepare info. and publ. material	¼		
Check Region 3 publ. releases			
Miscellaneous			
Construction (paint, capentry, etc.)			
Clean-up; inventory, maintenance			

BRANCH OF RESEARCH AND INFORMATION (CONT.)

	King	Steen	Dodge	CCC
RESEARCH AND EDUCATION				
Public Contact				
Prepare and deliver outside talks.			1.	
Office visitors (informational)	$\frac{1}{2}$			
Museums and Nature Trails				
Planning and executing	$\frac{1}{2}$	1		
Acquire, prep., catalogue specimens			$\frac{1}{4}$	
Acquire equipment and supplies				
Arboretum (plan, plant, maintain).				2
Visual Education				
Edit, file, record slides and movies				
File prints and negatives	$1\frac{1}{2}$		1	4
Take and process photos			$\frac{1}{4}$	
Miscellaneous				
Observation and bird band records			1	3
CCC Camp educational program.			1	
Ruins stabil. project administration $\frac{1}{2}$	19			
S.W.M. Association projects.	6			
FIELD WORK				
Field trips	10		$4\frac{1}{2}$	
Protection patrols.				
LEAVE				
Annual.		1	$\frac{1}{2}$	
Sick.				
Total days.	27	$26\frac{1}{2}$	$23\frac{3}{4}$	25

GENERAL ROUTINE

All available card envelopes were pasted in library books. This project is approximately 80% complete but cannot be finished until additional book pockets are received. The accumulation of color film lantern slides and motion picture continuities continued.

In addition to editing and processing the Superintendent's Monthly Report, the staff prepared six reports for submission to various offices. The usual large number of informational requests was answered.

A request was made to Region Three Technicians for a survey of Botatakin Canyon of Navajo National Monument with a view toward re-stocking the area with beaver. It is believed that these animals would aid considerably in retarding erosion there. Ranger James W. Brewer reports that upon superficial examination habitat seems favorable for beaver.

Notification was received from the Museum Division in Washington that efforts have been made to obtain Mescalero Apache artifacts for the White Sands Museum. It is believed that a representative series of these artifacts can be obtained.

Supervision of the Casa Grande Side Camp educational program was continued.

Considerable thought was given to the formation of a plan for

BRANCH OF RESEARCH (CONT.)

administering the antiquities funds which was made in the 1939 fiscal year balances. This program will take final form next month, and it is hoped that certain very badly needed ruins stabilization jobs can be completed before June 30, 1939.

Data were prepared to form the basis for a job application for capping, draining, and patching in the ruins stabilization program at Aztec Ruins National Monument.

SOUTHWESTERN MONUMENTS LOAN LIBRARY

Lack of personnel precluded the possibility of any library cataloging during the month, but 1,200 negatives were identified and placed in the permanent negative file.

As was mentioned above, approximately 30 percent of the books in the library now are equipped with loan card pockets.

A total of 122 publications were added to the library as follows: 33 books, 23 periodicals, 15 leaflets, 3 prints, 6 maps, and 45 pamphlets.

VISITORS

Superintendents Jess Nusbaum and Charles Smith; Supervisor Ronald S. Lee of the Branch of Historic Sites; Ranger Edwin Austin; Project Superintendent H. B. Chase.

NEW OR UNUSUAL ACTIVITIES

The following informational talks were given during the month: November 30, talk illustrated by movies at Casa Grande National Monument to 25 Pima school children from Blackwater.

December 4. Five talks, illustrated by movies, given at Casa Grande National Monument museum as an experiment for holding visitors during rush periods until guides can be furnished. A total of 100 people were contacted in this manner.

December 21. One talk to the local Federation of Federal Employees at Coolidge, Arizona. Attendance: 35.

It was with considerable pleasure that the letter of transmittal sending the manuscript for Southwestern Monuments Association Booklet No. 1 to the printers was written on December 23. It is expected that this booklet will be ready for distribution within a month.

Through the kind cooperation of the Arizona Game and Fish Commission, 95 Gambel quail were obtained and distributed to Wupatki and Pipe Spring National Monuments. It is known that this species was native to both localities, but the birds have been depleted or destroyed through unusual circumstances. It is hoped that this stock, possibly augmented during the next two years, will re-establish this interesting species at the mentioned areas.

Continued attempts were made to obtain a vertical component

BRANCH OF INFORMATION (CONT.)

seismograph for Sunset Crater National Monument. This project presents many difficulties and the staff is not very optimistic concerning successful completion. A seismograph for Sunset Crater would be such a distinct addition to the scientific program of the Museum of Northern Arizona at Flagstaff, Arizona, that the Southwestern Monuments staff does not wish to drop the project until all avenues have been exhausted.

RESEARCH

In response to a request from a graduate student of the University of New Mexico, a compilation of all known holdings of vertebrate bone material in Southwestern Monuments museums was completed and mailed. This survey brought clearly to our attention the meager possessions and inadequate cataloging at most of the National Monuments. It is hoped that some time can be allotted to install adequate catalogs in many Southwestern Monuments during the next year.

In order to bring the ruins trail at Aztec Ruins National Monument out of the original rooms without the use of unsightly wooden ladders, it became necessary to excavate completely one living room near the center of the settlement and to excavate partially another room nearer the plaza. Junior Archeologist Steen traveled to Aztec Ruins and performed this excavation during the month, first having received proper approval from the Regional office. His report of this small dig will appear in a future issue of the supplement to the Southwestern Monuments Monthly Report.

The aerial maps for Case No. 21, Bandelier National Monument Museum, were received from Bandelier and instructions were prepared for final mounting of the maps at the Western Museum Laboratories. Label copy was written and it is hoped that this case can be prepared early this spring.

Room measurements and a certain amount of other information was gathered by Junior Naturalist Dodge on his trip to Pipe Spring National Monument. This information will be used in future museum planning for this area.

Junior Archeologist Steen, with the gracious assistance of Mrs. Steen, prepared a script for the use of the Editor-in-Chief of the Park Service in compiling material of a publicity nature for the New Mexico Cuarto Centennial Celebration in 1940. The script delineated the western European historical factors which finally culminated in Coronado's entry into the Southwest. Considerable personal time was donated to the Government by the Steens on this project.

CONSULTATION ON DEVELOPMENTS

The field trip of Park Naturalist King was for the purpose of accompanying Supervisor Ronald S. Lee of the Branch of Historic Sites, members of the staff of the Region Three office, members of the staff of the New Mexico Cuarto Centennial Commission, through New Mexico monuments to

BRANCH OF INFORMATION (CONT.)

make a survey of needs of the areas before the heavy travel season expected in that year. Mr. Lee came to the Southwest as representative of the Secretary of the Interior and will relay his suggestions to him.

*****SWM*****

The following S. W. M. Loan Library book--Bureau of American Ethnology, Vol. 65, Exploration of Northeastern Arizona, by Guernsey and Kidder--has disappeared without trace. If it is on the shelves of any of the Southwestern Monuments offices or libraries, please notify Headquarters.

*****SWM*****

WALNUT CANYON CCC

By L. Clay Parler,
project superintendent,
Flagstaff, Arizona.

The last month of 1938, December, was a busy month at Camp M-5-A. All W. P. Projects were started and materials of all kinds were received and stored.

Ninety four enrollees left for Pennsylvania on Saturday, December 24, 1938, leaving the company strength of 92.

The snow has melted sufficiently to allow transportation to all jobs without difficulty. Several inches of snow fell at Wupatki, but only one day was lost--that on account of the storm on December 21.

Camp Mechanic Chase spent from December 15 to 23 bringing a convoy of new trucks from Santa Fe to be distributed throughout several camps in Arizona. The trip was made without any serious delay and no accidents.

Acting Regional Director Maier and Inspector Haile spent a short time in camp on December 17.

Inspector Haile made his monthly inspection on December 19.

On December 2, Engineers Diehl and Tovrea accompanied by Sanitary Engineer H. Hommon visited Walnut Canyon, definitely settling several questions concerning the Sewage Disposal Plan.

Excavation has been started on the Administration Building and Residence No. 2 at Walnut Canyon and the water system including sump reservoir at the spring, the pipe-line, and the storage reservoir, as well as the Custodian's house and Utility Building at Wupatki.

*****SWM*****

1938 STATIONARY TRAVELERS

STATION	Employ- ees		Field Trips				Museum Talks				Unattended		Total Informa- -tion Contacts	Total Travel	Per Cont Con- tact
	Per.	Tem.	No.	Attd.	Time	Av. Attd.	Av. Time	No.	Attd	Time	Av. Attd.	Av. Time			
Arches	1												65	213	65
Aztec Ruins	1	2	96	417	5000	4.6	31.2	116	470	2790	4.0	24.0	161	631	147.5
Bandelier	2	30	34	111	2130	3.26	10.3	32	100	820	3.12	25.6	115	211	215
Canyon de Chelly	1		3	41	1000	3.0	10.0	9	37	290	4.1	22.2	10	82	48
Capulin Mt.	1												500	500	500
Casa Grande	2	180	329	2146	10019	6.5	35.3	328	1790	5634	7.8	24.7	692	3936	2605
Chaco Canyon	1		10	111	2000	4.5	12.5	18	73	615	4.3	31.1	113	260	162
Chiricahua	1	3	58	108	2020	5.2	12.2						84	188	272
El Morro	1		7	25	310	3.3	18.3	4	10	630	2.5	157.5	14	33	47
Gila Cliff															
Gran Quivira	1		38	147	960	3.6	25.2							147	147
Hovenweep	2		71	364	3373	3.1	47.5	66	298	1292	4.5	19.5	58	662	425
Montezuma	1												40	6	40
Natural Bridges	2												700	6	6
Navajo															
Organ Pipe														40	205
Pipe Spring	1		13	40	115	5.0	24.2						165		1500
Rainbow Bridge													1259		
Saguaro			73	241	1680	2.2	23.0								220
Sunset Crater															
Tonto		1													
Tumacacori	1	1	103	1517	6135	6.8	22.6	245	1636	4970	6.7	20.2	161	3203	1723
Walnut Canyon	1	40	61	167	1620	2.7	26.5	23	97	605	3.4	21.6	77	264	333
White Sands	3												3500		3500
Yucca House		20													
Totals	23	21	1033	5644	38012	5.2	36.7	746	4536	17646	6.0	23.6	7934	9945	13364
Last Month	21	22	1172	5721	36754	4.8	41.5	828	4748	13959	5.7	16.8	11098	10439	17320
Last Year	22	8	1054	4539	37012	4.3	35.1	775	3227	15437	4.1	19.9	7012	7868	11503

PERSONNEL

By the Boss and Others

On top of a fairly busy, run-of-the-mill month comes the rush and grind of getting a lot of Public Works jobs under way; and on top of that the Christmas push. With it all the boys in the office felt at times like a little dog chasing his tail--lots of action but not seeming to get anywhere. The work just kept piling up about as fast or a little faster than they could shovel it off the desks into the files and the out-going mail bags.

Al Kuehl wasn't quite so well as we reported last month and finally wound up by taking sick leave and going to the coast for a general overhaul and check-up. We understand at this writing he will be back after the holidays.

Charlie Steen is back from the job of excavating two rooms at Aztec Ruins where Carroll Miller is changing a visitor trail. Charlie reports an interesting trip and will probably give us something for the Supplement on the results of the dig. One interesting episode of the trip was the ten-above-zero night he and Mary had to spend out in the forest up over the Mogollon rim in a truck whose lights went out. Such things grow more pleasant as the memory looks back a few years upon them.

Tom Charles got his new White Sands booklet out during the month and it is a nice piece of work. He wrote most of it while he was laid up with sciatica not long ago and Mrs. Charles said it was a blessing he had it on his mind as otherwise he would hardly have been fit to live with.

Johnwill and Lena and little Jimmie Faris seem to be getting settled down at White Sands in good shape. It won't be long now until the paved road is completed and we will be able to turn the public through the new administration area. Then will we begin to realize how big our problem is when a third the number of visitors the Grand Canyon has come down on our one full-time ranger, our part-time custodian, and our one utility man.

Ronald F. Lee, of the Washington Office Branch of Historic Sites, was in to see us on the 19th of December in connection with our cooperation with the Cuarto Centennial show over in New Mexico in 1940. We all enjoyed the visit very much, though we worked hard all day, even taking our problems to the luncheon table over at the Inn. Hugh had to take Ronnie up to Ash Fork, 300 miles, to catch an eastbound midnight Santa Fe train. Need we add that he is sold on the Southwestern Monuments?

For once, Washington beat the grapevine telegraph on the call for a Superintendent's Conference at Washington, January 5 to 10. It was as unexpected as the rabbit the gentleman sometimes pulls out of the hat. There is so much work in the office that the Boss decided the best thing for him to do was to leave this end to Hugh and go East himself. At this writing he is waiting for a cold to clear up and Dec. to give his consent; neither of them being very severe the outlook is good.

PERSONNEL NOTES (CONT.)

David and Corky Jones moved from Wupatki to Casa Grande on the first of December, and David is now on his winter tour of duty as ranger at Casa Grande National Monument. They are quartered at the Vah-ki Inn for the winter. During the month Davy overhauled the Pima basket and pottery case in the museum, improving the display considerably. He and Al, with the approval of Dale, have further museum changes planned as time allows. There is talk of sending more stuff back into storage which bring the usual yowls from the Boss who is more or less of the old school in the museum arguments and wants plenty of reference material on his shelves when he starts his museum talk with a party of visitors.

Mrs. Smith, of the Vah-ki Inn, invited the Park Service crowd over for dinner the evening of December 17. The Boss was surprised to figure up that there were 29 of us as a possible total of attendance, but, fortunately for Mrs. Smith, our forces were somewhat scattered and not that many could attend. We all had a lovely time, needless to say, and there is still talk among the boys about the fine feed. Also we enjoyed the music furnished by Charlie Carter and Polly Tovrea, and everyone seemed to get a kick out of the Christmas carols and the general gang singing.

Ruth and Chuck Richey dropped in for a few minutes the other day while en route between San Diego and Santa Fe on annual leave. They both looked well and it was good to see them again. They were about half persuaded to go home and send out their Christmas cards and then come back and go down to Guymas on a fishing trip with Tov. and Polly who are also taking annual leave.

Ted Cronyn has changed his official name and is now Custodian of Canyon de Chelly National Monument. He took a little time off during the holidays to get out to civilization for a few days.

George Sheffield, CCC, has changed from guide to mineograph operator upon the resignation of Vic. Sholz who has gone to the coast to accept a position.

Scott Hall, CCC, has taken Sheffield's place on the guiding forces.

Bob Budlong had a tough experience the past month when it became absolutely necessary for us to talk to him. He received our wire by a messenger, tried half the night to get in touch with us through the short wave Arizona amateur stations, and then put in the remainder of the night slipping and sliding over the road into Gallup. But he made it, to the salvation of some of our funds.

Dale King was cut with Ronnie Lee for ten days or two weeks and they both reported a very successful trip. They were at Albuquerque, Santa Fe, Aztec, Chaco Canyon and El Morro. King came in rather under the weather with a cold or flu or whatever it is that every one is having, but Hortensia's cooking soon brought him around.

Natt Dodge has made several talks with color movies during the month and reports successful showings. Also we had one Sunday when we had a lot of fun experimenting with handling the waiting visitors between trips at Casa Grande with color movies and color slides. You will hear more of this later.

PERSONNEL NOTES (CONT.)

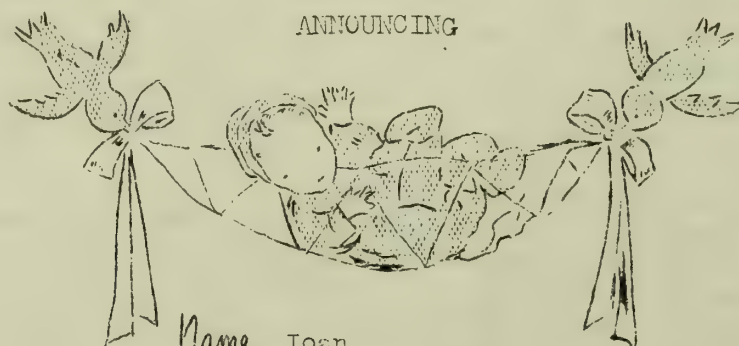
We had word from Ruth and Millard Henning at the first of December. They were at Martinez, California, and were trying to arrange their affairs so they could buy a house trailer in Los Angeles about the middle of the month and be in Death Valley by Christmas. From there they will be on the way to the Southwestern Monuments. We know that everybody will be glad to learn that Millard's eyes seem to be holding their own. They say they hear from Natt and Louie Caywood and Zeke and with the Monthly Report they keep pretty well in touch with what we are doing. They also say they are starting out for a two year cruise this time, which sounds like they may be preparing to visit all our monuments and really get acquainted.

Ruby and Hub Chase were Christmas visitors with the Millers at headquarters and then went down to Tucson where Hub had a lot of dental work caught up.

Louis Gastallum and Bob Petric went home over the Christmas vacation, as did Larry Mungerro; Ira Goodwin holding down the bachelors' quarters over the week end.

On a wildlife trip to Pipe Spring, Natt secured a number of much needed photographs of the fort and surroundings, and brought back from the Heaton's a Christmas gift for each of the Headquarters and Casa Grande families. The gifts consisted of home canned preserves, jams, jellies and the like which were greatly enjoyed by all of us and gives us an insight into why Leonard always looks so well fed. The Heaton's had a real big hand in our Merry Christmas at Coolidge.

A new use for the museum truck (popularly known as "the pie wagon") is suggested by an experience suffered by Davey Jones. Davey was looking for some item among the shelves in the back of the truck when the door blew shut. Control of the latch being on the outside, Davey found himself a prisoner in somewhat warm and cramped quarters. Fortunately his shouts were heard and he was released. As long as the truck is at Headquarters, there will be no need of a jail at Casa Grande.



Name Joan

Date December 23 Wt. 7 pounds

Parents Mr. and Mrs. Robert S. Harris

\$ The Supplement

S.

U.

M.

Monthly
Report

SUPPLEMENTAL OBSERVATIONS

OUR NEW YEAR

What lies ahead? Where turns the widening trail?

For ever-swelling tides of travel sail,

And Man is on the march. His peanut shells

Profane the hills and clutter up the dells;

And harried wildlife, refuge seeks in vain

Beyond the roar of cars and smoke of train.

It rests with us, the future of the Wild;

The duty ours to keep it undefiled!

Should we feel hurt if travelers pass us by?

"More roads! More trails!" Can that call be our cry?

Is it our boast our travel grows? For shame!

For greed of numbers would we sell our name

"Primeval Wilderness"? The world will build

Its highways to our doors. Our home is filled

With treasures, year by year grown rich and rare.

More citizens thus claim a shrinking share.

Let's keep our trusted faith forever hence

. As guardians of the Parks and Monuments.

N.D.

On November 10, I went up the Canyon with Mac. to blast out some dirt that had caved into the Chaco wash. This had caused the water to back up over the road, making it impassable, and also making quite a pool of water. We saw a loon on the water, and the cowboy with us tried to rope him. When he tried this, the loon would give that mournful cry and dive under the water and ice, swimming in circles. Finally the two Navajos, who were shoveling, waded into the icy water after him. One stopped long enough to take off shoes and sox, and one left them on. They pinned the loon down with the back of a shovel, and finally caught him. He fought everyone in reach, and was rather hard to handle. The only band we had large enough to fit him was a size 8. Mac. bent this to fit his leg, because it was so wide and flat. We turned him loose on a stock lake near here. Several days later we made a trip to the lake and found him gone. Probably he decided the South a more hospitable place than the Chaco.

Birds Banded in November

Canyon Towhee	0	3	0
Gambel Sparrow.	6	0	0
Loon	1	0	0
Totals	<u>7</u>	<u>3</u>	<u>0</u>

*****SWM*****

One domestic cat was permanently removed from the monument during the month. Some of the neighbors have pet cats that range abroad during the hours of darkness, and it is thought that some of the cat tracks observed within our boundaries may belong to some of these neighborhood felines. Since, undoubtedly, they have not read the signs prohibiting them from entering the monument, it has been thought to give such pets one warning, and one only, before taking more drastic action. Accordingly, a machine has been designed to administer a stern rebuke to such cats. Constructed of some strong, springy lath, a trigger arrangement, a means for keeping the lath in a strongly-bowed position until time for its release, a can of salmon, and a few other items, it works to perfection. The weight of the victim on a small platform containing the can of salmon actuates the trigger mechanism, the bent lath are released, and the lath fly forward. Prompt action is obtained. Two methods of propelling the cat have been tried--vertically and horizontally. This latter method necessitates the construction of a guard around the bait, so the south end of the cat is toward the bent lath when the trigger is released. This results in a violent forward motion of the cat, and one such horizontal flight on the part of one medium-sized cat was measured and found to be a little in excess of five feet. The vertical propulsion method is not quite perfected, but surprising levitations have been obtained. No cats have been observed to return to the monument after once having experienced such stimulus, and any ill-feeling on the part of neighbors is therefore

EL MORRO WILDLIFE (CONT.)

avoided. Perhaps this very worthwhile project should be listed under "Division of Education."

Of our 39 Scaled Quail liberated here last spring, 72 have been observed. They have spread some miles from the monument, but local farmers take great interest in them, and have volunteered to feed them during the winter.

Some of our wildlife is growing entirely too tame. Right now our trouble in this respect--named "Gertrude"--shows no slightest fear of humans. Gertrude even parks on our front doorstep, as I know from almost tragic experience, when I tripped over him one night. Recently, one dark night, I went down to throw some refuse into the garbage pit, and subsequent events proved that Gertrude was in it. We were both highly surprised. I just barely escaped. Gertrude is a skunk, and his strength is as the strength of ten. He is growing quite accustomed to being tripped over now, and to date we can report no catastrophes that can be laid to his door. Perhaps, however, in our next monthly report--who knows!

*****SWM*****

COMMENTS FROM CHIRICAHUA

By Frank Fish

(Note: On November 12, Frank Fish and Bill Stevenson observed a pair of large, vividly colored birds in Rucker Canyon. Frank sent in a description of the birds and requested identification. The description fitted that of a Thick-billed Parrot which occasionally invades the mountains of southwestern Arizona from Mexico. The description was forwarded to a bird authority and a request for addition information sent to Frank Fish. His reply follows: Ed.)

The birds seen in Rucker Canyon on November 12 were about 16 inches in length, but I could not positively state that they were parrots. However, from the rear view or glimpse, they had the appearance of parrots and I distinctly saw that the outer tail feathers had a strip of white along the outer edge near the end. The call they made flying, or I should say fluttering, from one tree to another ahead of us down the canyon for about one half mile was quite distinctive and something I never heard before. The birds appeared quite put out because we had disturbed their roosting. They were also nervous and never allowed us to approach closer than 50 feet and as it was in the dusk of the evening any accurate observation could not be made.

*****SWM*****

BANDELIER NATURE NOTES AND OBSERVATIONS

By George Sholly

Bird banding at two of the stations was started on November 7 but, due to the great quantity of natural feed, the birds are rather difficult to entice into the traps with a mere handful of grain. More of the varied species are noted this month especially the juncos, many bearing bands from last winter. Several of the Western Robins are in the Canyon, also a great number of Long Crested Jays, but neither can be

BANDELIER NOTES (CONT.)

seen near the trap locations. We'll probably have more success catching them after there is snow on the ground. One group of Western Tree Sparrows are noted to have come south already. Other birds noted on the Monument are Lead Colored Bush Tit, Canyon Towhee, Pygmy Nuthatch, Pine Siskin, Rock Wren, Band-tailed Pigeon, Water Ouzel, Chestnut-backed Bluebird, Red-shafted Flicker, Pinyon Jay, and Rocky Mountain Sapsucker, Woodhouse Jay. Birds banded during the month:

	New	Repeat	Return
Canyon Towhee	0	0	2
Juncos	2	2	9
Long Crested Jays	1	0	0
Total	<u>3</u>	<u>2</u>	<u>11</u>

The hunting season opened the first of November at an ideal time as far as the weather was concerned; light rains a few days previous to the season made the woods quiet and easy to determine the areas in which game is to be found. Notwithstanding the excellent weather, there were few deer and turkey taken from this region. One of the predominating factors preventing many hunters from getting their venison, I believe, was the new State law on bear hunting. The law provides for a person to hunt bear with a trained pack of dogs only, an entire month before the opening of other seasons. With the dogs running in the woods and the rifles firing, the deer and turkey naturally seek the refuges early. The Otowi Section was inspected twice weekly during the open season finding no poachers. Through the cooperation of the Range Guard on the Ramon Vigil Grant, who is under the employ of the Soil Conservation Service, a horse was borrowed and two patrols were made of the south end of the monument. I found no one hunting during these two days but tracks indicated that hunters had been on the monument both afoot and on horseback, however, there is no remedy until the monument is fenced or properly posted. A mixed bunch of deer were seen consisting of seven does and three bucks, numerous turkey sign, one cougar track, one bear den, and while I was walking up Frijoles on November 8, I saw a flock of 14 turkeys leisurely climb the slope ahead of me. After the Ranger Station and Hotel Utility areas have been planted, these turkey will stay in the canyon as they have in past years, there being any number of berry plants and acorn-producing oaks in these areas. The deer will probably come into the canyon by the old South Mesa trail to water as they now do in the upper part of the canyon at the west boundary.

*****SNM*****

MONTEZUMA MUSINGS

By Earl Jackson

Our museum is housed in one room of the operator's building, in cases which were for the most part intended for book shelves. The glass fronts of these cases are in panels, and the woodwork cuts out considerable light. Re-location of shelves in one case helped exhibits considerable. In another case I put in a false back, making the case four inches deep instead of a foot, and took out most of the shelves.

MONTEZUMA MUSINGS (CONT.)

Exhibits re-arranged and placed in this shallow case show up about 150 percent better than they did before. Small objects were removed from a flat table case and put in this exhibit, while bulkier objects were put in the table case. All this helped considerably.

A new case made from parts of an old one and some scrap lumber, painted white inside and brown stain on the outside, was intended especially for our snake exhibit. A large stuffed rattlesnake occupies the bottom, and rests on an inch or so of the natural soil of his habitat. Above the snake, a false back brings the case from a foot deep to four inches. On this back are three sketches which make up the rest of the exhibit. The top is a rattlesnake's head enlarged until it is about ten inches long, with the different parts designated by labels. The next sketch, a shaded one, shows the greatly enlarged skull of a typical harmless snake, and its bristling rows of teeth. The sketch below this is on the same scale, showing a rattlesnake head with the flesh removed from one side to show the poison gland, tube, and fangs. This was colored by my wife, so as to look quite impressive. All these sketches are pantographic enlargements of drawings or photographs from authoritative text books on snakes, and the source is shown at the lower right of each sketch. Between the sketches and the snake, is the skull of a pit viper mounted on black velvet.

It remains to correctly caption the exhibits, and it will be complete. It is graphic enough, however, that we have no trouble explaining anything about pit vipers to the visitors,

During the month, Chester F. Allan of Clarkdale very kindly provided us with some live Black Widow spiders for the museum. At his suggestion I made a glass case for them. It was about a foot long, five inches high, and three and a half inches deep, with flat top. It was divided into three chambers of equal size by glass partitions. Sticks were planted in each chamber for the spiders to spin on, and the case was made very sturdy by simply gluing the edges of the glass together with household cement. All was lovely, except that terrific fumes arose from the cement. After airing it for nearly a month, I think at last the fumes have dissipated enough so the spiders will do all right. In the meantime, they have been on exhibit in a couple of glass jars.

Twenty-two plant specimens were packed and sent off for identification during the month.

The greater part of our textile collection was packed and shipped to Dr. A. C. Whitford or Alfred, New York. As a research chemist, he will conduct a careful study of this material for us.

A paper containing points we have learned and collected on preparation of life-mount exhibits of insects was written and submitted to Headquarters. (This will appear in the January Supplement. Ed.)

After considerable search, some glass-capped fruit jars were found in which to place preserving formulae, and some mixtures which had been unsatisfactory in metal-capped jars were remixed and placed in the new ones. Our laboratory (a corner of our living room which also contains the

office) is now becoming a bit crowded.

Some pamphlets on laboratory and field techniques were requested and received, and have been placed in our reference file.

*****SWM*****

BIRDS AT MONTEZUMA CASTLE

By Betty Jackson

The birds seen on the monument in November are as follows:

Coot, Arizona Cardinal, Say Phoebe, Canyon Wren, Rock Wren, Mourning Dove, Gambel Quail, House Finch, American Raven, Red-shafted Flicker, Western Robin, Desert Sparrow Hawk, Williamson or Rocky Mt. Sapsucker (Sphyrapicus thyroideus (nataliae?) Red-tailed Hawk, White-rumped Shrike, Oregon Junco, Gambel Sparrow, Pink-sided Junco, Bridled Titmouse, Red-backed Junco, Cactus Woodpecker, Ashy Ruby-crowned Kinglet, Gila Woodpecker, American Merganser, Baird-Bewick Wren, American Osprey.

We have two unusual records this month. The first is the American Osprey, which Earl and I saw from the entrance road to the monument. Each of us noted a few of the distinctive marks, and of course some of our observations overlapped. Together we scanned the bird books and easily agreed it was the Osprey. It seems remarkable that he should have been sailing over the monument so low, where there is none of the big water he is supposed to prefer.

The other is the Sapsucker. Wyman and Burnell in their "Field Book of Birds of the Southwestern United States" call Sphyrapicus thyroideus the Williamson Sapsucker. Bailey, in "Birds of New Mexico", calls it the Rocky Mt. Sapsucker, but she adds the subspecies name "nataliae". I infer from the title of one of her sources (H. S. Swarth, "Geographical Variation in Sphyrapicus thyroideus", the Condor, Vol. 19, pp. 62-62, 1917) that the name I should use depends on where I saw the bird. Not having access to that source, I have used both names.

I heard his harsh guttural cry, and knew it was woodpecker family, though the call was lower and stronger than any I had heard from the others around here. Finally I saw him on a dead sycamore limb above the Castle park bench. I also heard him give the characteristic pecks, which Jensen says the birds use in the nesting season, two blows, and then four. (Jens K. Jensen, "Notes on the Nesting Birds of Northern Santa Fe County, New Mexico", The Auk, Vol. 40, p. 333, 1923)

The first Oregon Juncos arrived on November 6 and by the 12th the Pink-sided and Red-backed had arrived. I haven't seen the Red-backed close enough to check on the bill color, but not having seen any Grey-headed ones here, I am hoping my identification to be correct.

The flock of Western Robins left us about November 10, after stripping our hackberries of most of their fruit.

The Coot is still alone. He fishes below the Castle, diving a lot to the bottom for his food. Near the tent he does almost no diving but swims around picking up insects from the surface, or from floating

BIRDS AT MONTEZUMA CASTLE (CONT.)

leaves, and from just under the water. He shakes the water off his head much the way a cat would, as if he dislikes it. He always swims away from me in a casual manner, as if he were going there anyhow, and then if I stand still a while he swims back, and goes right on feeding. He has a lovely way of striking out to right and left alternately with his bill, but occasionally he breaks the rhythm when there are two delicious morsels on one side.

I am glad to see a Say Phoebe again. I doubt if he was one of the old pair that nested above our door, because I have a notion they are dead now, but he was very friendly, allowing me to come within 25 feet of him without seeming at all disturbed. He was below the Castle, beyond the range of our old pair.

The friendliness of the birds is very gratifying. A Rock Wren now has become accustomed to seeing the baby and me sitting outdoors in the afternoons. He will come bobbing up to within ten feet of us, unless the baby is making sudden movements. I saw him catch a grasshopper off a mesquite twig on November 12. He looks so alert, jerking to attention with one ear cocked, then jerking his head to the other side with his eye glittering suspiciously.

*****SWIM*****

CASA GRANDE NATURE NOTES

By Don Eggermayer

During the month the house finches have been quite busy in the ramadas of the residences, the picnic ground, and the administration building. Jr. Naturalist Dodge has taken some photographs of netting and banding these birds. As this work must of necessity be done at night, a rather unusual accident occurred in the course of one such evening's efforts. Jimmy Rodgers, one of the guides, was helping Dodge, when he fell into a Bisnaga Cactus near the front of the bachelor quarters, filling both knees with the spines, and necessitating removal by the surgeon at SP-3-A.

On November 19, Jr. Naturalist Dodge found a tortoise calmly walking over the desert near the sewer exit. He brought it in for photographing, but before any pictures could be taken, several hours work was put in removing the date "Oct. 10, 1938" which someone had painted in large letters on its shell.

During the month the house cat problem has been settled, at least temporarily; Assistant Superintendent Miller accounted for one, and Ranger Eggermayer disposed of two more. There still remain two large dogs which hunt on the monument periodically, and which leave at top speed when they see anyone approaching.

Evidence that the Casa Grande horned owls are varying their diet with quail has been found in the form of feathers of these birds in the ruins beneath the owl perches on several mornings.

*****SWIM*****

On September 26, I put out my bird traps and have had good success in catching Gambel Sparrows and a few other species. I have the following to report since my annual report was sent in last June:

	New	Repeat	Return
Gambel Sparrow	206	206	22
Baird Sparrow	2	7	0
Spurred Towhee	1	2	0
Junco	7	0	0
White-rumped Shrike	0	0	1
Great Horned Owl	1	0	0
Song Sparrow	1	0	0
Mourning Dove	2	0	0
Green-tailed Towhee	4	0	0
Canyön Wren	2	0	0
Red-shafted Flicker	1	0	0
Ariz. Crested Flycatcher	1	0	0
Totals	228	215	23
Total birds handled, 476.			

*****SWM*****

HEADQUARTERS HAPPENINGS

A new bird was added to the Casa Grande check list on December 3 when CCC enrollee V. Scholz captured an immature Audubon Warbler which had wandered into the camp educational building. Identification was substantiated by Gil. Philp.

Casa Grande Ruins bats have apparently gone into their winter hibernation as the usual evening bat flights ceased about the middle of November. Following very warm days, a few bats dribble from the ruins about sundown. On one occasion, as several bats left the shelter, one of the Horned Owls which spend the daylight hours perched on the superstructure supporting the roof was seen in close pursuit. With spread talons it attempted to clutch the bat which eluded its grasp. This is the first indication recorded at Casa Grande of anything but cordial relationships between the owls and bats which have for many years inhabited the structure together.

About sundown on November 16, several House Finches were perched on the back of a chair beneath the ramada of the Old House apparently preparing to seek roosts for the night among the reeds of the roof. From the west a larger bird came flying swiftly, flashed beneath the ramada and among the finches which scattered in a panic. Disappointed in missing its prey, it perched for a moment on the back of the chair; a White-rumped Shrike.

Several birds have been found dead and partially eaten in the bird traps. On one occasion a hawk was caught in the act of killing the trapped bird, and on two instances shrikes were found dismembering the victims. The name "butcher bird" sometimes applied to the Shrike

HEADQUARTERS HAPPENINGS (CONT.)

apparently is well taken.

For some time CCC enrollees attending the bird traps were puzzled by the disappearance of the grain used to bait one of the bird traps. Then one of them observed a line of ants busily engaged in transporting bits of grain from the trap platform to an ant hill some distance away.

Bird-banding activities have been considerably curtailed as a result of an effort to concentrate on specific problems. Following are records as of December 1, 1938, accumulated since the annual report of June 30, 1938:

	New	Repeat	Return
House Finch	51	7	22
Say Phoebe	0	0	1
Gambel Quail	5	7	7
Gambel Sparrow	15	8	16
Rough-winged Swallow	3	0	0
Crissal Thrasher	3	14	5
Cactus Wren	0	10	3
Total	<u>77</u>	<u>46</u>	<u>54</u>

A Total of 177 birds were handled during the period.

Banding records bear out observations that cactus wrens are decreasing in numbers on the monument, at least in portions around the buildings where they are seen. This decrease has been consistent during the past 18 months.

Among other things learned about the habits of house finches, it has been determined that individuals return to habitual roosting areas even when their normal travel routes are interrupted. On February 25, 1938, 50 house finches netted in Casa Grande picnic ramadas were transported to Tucson, Arizona, a highway distance of 67 miles, where they were released. On October 25, 1938, five of these birds were captured in the Casa Grande ramadas. As the finches were transferred at about the time of the spring migration, a similar experiment is planned for midwinter to learn if the birds will return immediately or if they will wait until after their summer trip to their nesting sites.

*****SVM*****

RANDOM PAPERS

TRAVEL PATTERNS OF SOUTHWESTERN VISITORS

By Dale S. King, assistant park naturalist,
Southwestern Monuments Headquarters.

Just how blasé is the average visitor to the Southwestern Monuments? When one of our boys launches an explanation of tree ring dating, how much likelihood is there that he is boring some visitor who has heard the same talk at another national park area?

We can guess at the answers to these and other questions, now that the returns from questionnaires issued during the 1938 summer travel season have been roughly analyzed. The experience of the average 1938 summer visitor was something like this:

- (1) In past years he had visited between three and four national park areas.
- (2) When he came into the Southwest, he saw approximately two of the monuments administered by Superintendent Pinkley.
- (3) He also picked up one and a half other southwestern park areas, such as Grand Canyon, Carlsbad, Mesa Verde, etc.
- (4) At some time on his trip he view slightly more than two parks or monuments in another part of the United States, and arrived home with his "lifetime" total number of visited park areas more than doubled.

Our interest in where our visitors have been and where they are going is not merely idle curiosity. Such information has great significance in the planning of visitor contact programs which we hope to build throughout the Southwestern Monuments.

Several times in the past few years we have been disturbed by comments relating to the content of information presentation at our monuments. A typical one was, "Why tell anything of New Mexico Spanish history at White Sands museum when the Tumacacori exhibits portray

TRAVEL PATTERNS (CONT.)

Spanish history quite thoroughly?" Assuming that Tumacacori exhibits did tell enough of Spanish history to explain the interesting events which transpired in the Tularosa Basin, we still wondered how many White Sands visitors saw Tumacacori. Hence the questionnaire.

One hundred forms were distributed to each custodian at those monuments whose travel peak comes in summer months. Field men were asked to make random distribution of them to a representative series of visitors, local and out-of-state, hurried and leisurely, rich and poor, interested and uninterested. Some of the boys fell down on the assignment, but enough answers were returned to form data sufficient for good guessing. It is planned to do the same with "winter" monuments during a typical travel month this winter. Casa Grande figures are being kept both for summer and winter to check any observable differences.

Questions were:

1. Please name all national monuments and national parks you have visited this summer:
2. What ones do you plan to visit before your trip is ended?
3. What ones have you seen in past years?
4. What is your home state?

No tabulations have been worked out on Question No. 4, but the answers to the first three have pointed the way to some interesting conclusions, particularly concerning the danger and lack of danger of duplicating museum exhibits and guide presentations at various of our areas.

For instance; taking the question about White Sands and Tumacacori mentioned above, NOT A SINGLE ONE OF THE HUNDRED PARTIES AT WHITE SANDS HAD VISITED, OR WERE GOING TO VISIT, TUMACACORI ON THEIR 1938 SUMMER TRIP! This would pretty definitely indicate that as far as Tumacacori's Spanish history presentation is concerned, White Sands will have to stand on its own legs. Put it another way. If we tell Spanish history only at Tumacacori, some 110,805 White Sands visitors are going to go away each year completely uninspired with this absorbing phase of the Southwest.

"Oh," you say, "Spanish history will also receive much emphasis at Gran Quivira, which is much nearer White Sands and would receive many of the White Sands Visitors". But NONE (speaking of the 100 interviewed) saw Gran Quivira, either. Absolutely none! Of course, the converse is not true, for approximately 15 percent of Gran Quivira's visitors also viewed White Sands.

Do we, or do we not, give at least a skeleton background of Spanish history at White Sands? The answer is, we do! And such decisions are important, for it costs time, and sweat, and money to produce the exhibits which eventually will fill the White Sands museum, augment its trails, and be talked about on field trips and at moonlight talk programs.

It may be argued that since White Sands is primarily a geological phenomenon, it should include no historical exhibits. But White Sands geology would be considerably lessened in interest if it were divorced from its absorbing ecological and anthropological effects. We would be short-sighted, indeed, if we allowed the thousands of visitors to leave White Sands without a well-rounded impression of the many aspects of the

TRAVEL PATTERNS (CONT.)

area in relation to the Southwest as a whole.

It is an interesting sidelight conspicuously brought out in the answers to our questionnaire that to visitors "park" or "monument" merely means "point of interest." Listed below, in no particular order, are names which visitors included in their park and monument list:

Royal Gorge	Zuni country	Colossal Cave
Painted Desert	San Francisco Peaks	Yosemite Valley
Casa Grande	Juarez, Mexico	Niagara Falls
Golden Gate	Isleta	Donner Party
Lincoln's Tomb	Black Forest	Tuzigoot
Sycamore Canyon	Oak Creek Canyon	Wichita Game Preserve
all homes of U. S. presidents	Grand Valley	Alamo
Mount Vernon	Tahoe Lake	San Jacinto
Ozark Mountains	Kaiab Forest	Lincoln (N.M?) Nat'l Park
Meramec Cave	Marble Canyon	Sandia Mountains
Hopi Tower	Hopi Villages	Huachuca
Natural Bridge, Va.	Meteor Crater	Garden of the Gods
Skyline Drive, Va.	Black Hills	Gallup Indian dances
29 Palms	Deadwood Canyon	Crook (N.F?)
Seven Devils Cliff Dwellings	Red Canyon	Estes
Elephant Butte Dam	Frijoles	Puye
Carson Nat'l Forest	Pikes Peak	Shiprock
Adirondacks	Taos	Cochise Stronghold
San Xavier	Kit Carson Cave	

The following schematic maps show the most significant data in more graphic fashion, it is hoped. The accompanying notes assume that several basic ideas or principles; i.e., dendrochronological technique, stratigraphy adaptation to environment, etc., will occur in exhibits and talks at many monuments. At one monument, stratigraphy is shown by a trash mound model; at another, by an actual sectioned midden in the ruin; at still a third, by means of motion pictures or colored slides, etc. Ideally, such variations in methods of presenting an idea could continue indefinitely. Practically, the 'steenth attempt to portray stratigraphy in a different fashion finds a man's ingenuity wearing a little thin. By "duplication" (which is a recurrent theme in the ensuing notes) we mean what results from the attempt just after the 'steenth one, when a designer still feels it important to portray the idea of stratigraphy.

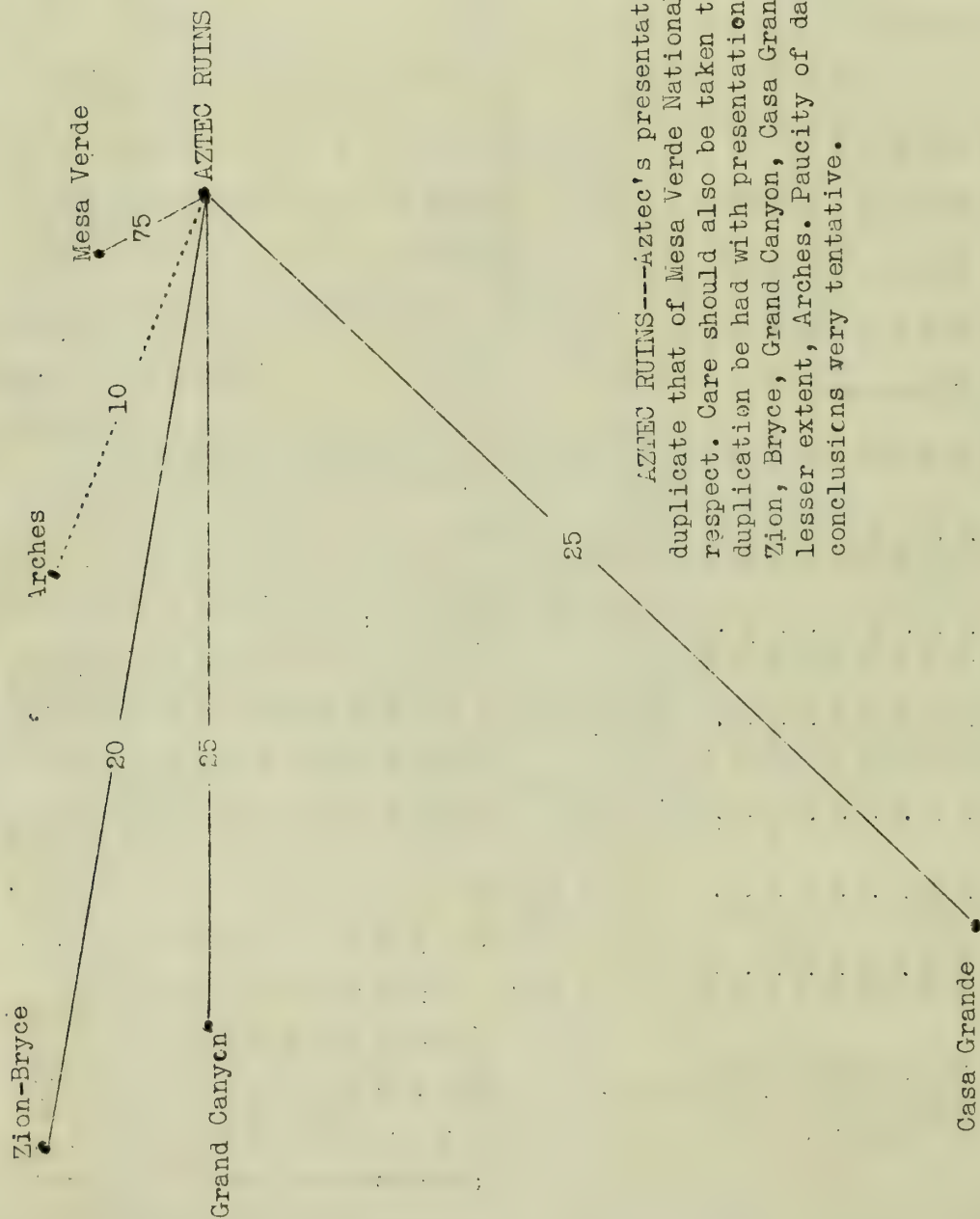
NATIONAL PARK AREAS SEEN BY SOUTHWESTERN MONUMENT VISITORS

This many persons
visited these monuments
Who had visited
these monuments →

This many persons visited these monuments Who had visited these monuments →																											
Aztec Ruins	10	Arches	10	Aztec	10	Bandelier	2	Canyon de Chelly	2	Casa Grande	2	Chiricahua	2	Gran Quivira	2	Montezuma Castle	2	Pipe Spring	2	Walnut Canyon	2	White Sands	2	Wupatki	2		
Bandelier *	0	Arches	0	Aztec	0	Bandelier	0	Canyon de Chelly	0	Casa Grande	0	Chiricahua	0	Gran Quivira	0	Montezuma Castle	0	Pipe Spring	0	Walnut Canyon	0	White Sands	0	Wupatki	0		
Canyon de Chelly	0	Arches	0	Aztec	0	Bandelier	0	Canyon de Chelly	0	Casa Grande	0	Chiricahua	0	Gran Quivira	0	Montezuma Castle	0	Pipe Spring	0	Walnut Canyon	0	White Sands	0	Wupatki	0		
Casa Grande	1	Arches	1	Aztec	1	Bandelier	1	Canyon de Chelly	1	Casa Grande	1	Chiricahua	1	Gran Quivira	1	Montezuma Castle	1	Pipe Spring	1	Walnut Canyon	1	White Sands	1	Wupatki	1		
Chaco Canyon	2	Arches	2	Aztec	2	Bandelier	2	Canyon de Chelly	2	Casa Grande	2	Chiricahua	2	Gran Quivira	2	Montezuma Castle	2	Pipe Spring	2	Walnut Canyon	2	White Sands	2	Wupatki	2		
Chiricahua	0	Arches	0	Aztec	0	Bandelier	0	Canyon de Chelly	0	Casa Grande	0	Chiricahua	0	Gran Quivira	0	Montezuma Castle	0	Pipe Spring	0	Walnut Canyon	0	White Sands	0	Wupatki	0		
Gran Quivira *	0	Arches	0	Aztec	0	Bandelier	0	Canyon de Chelly	0	Casa Grande	0	Chiricahua	0	Gran Quivira	0	Montezuma Castle	0	Pipe Spring	0	Walnut Canyon	0	White Sands	0	Wupatki	0		
Montezuma Castle	0	Arches	0	Aztec	0	Bandelier	0	Canyon de Chelly	0	Casa Grande	0	Chiricahua	0	Gran Quivira	0	Montezuma Castle	0	Pipe Spring	0	Walnut Canyon	0	White Sands	0	Wupatki	0		
Pipe Spring *	0	Arches	0	Aztec	0	Bandelier	0	Canyon de Chelly	0	Casa Grande	0	Chiricahua	0	Gran Quivira	0	Montezuma Castle	0	Pipe Spring	0	Walnut Canyon	0	White Sands	0	Wupatki	0		
Walnut Canyon	3	Arches	3	Aztec	3	Bandelier	3	Canyon de Chelly	3	Casa Grande	3	Chiricahua	3	Gran Quivira	3	Montezuma Castle	3	Pipe Spring	3	Walnut Canyon	3	White Sands	3	Wupatki	3		
White Sands	2	Arches	2	Aztec	2	Bandelier	2	Canyon de Chelly	2	Casa Grande	2	Chiricahua	2	Gran Quivira	2	Montezuma Castle	2	Pipe Spring	2	Walnut Canyon	2	White Sands	2	Wupatki	2		
Wupatki	16	Arches	16	Aztec	16	Bandelier	16	Canyon de Chelly	16	Casa Grande	16	Chiricahua	16	Gran Quivira	16	Montezuma Castle	16	Pipe Spring	16	Walnut Canyon	16	White Sands	16	Wupatki	16		
Average		Arches	1.9	Aztec	1.5	Bandelier	2.2	Canyon de Chelly	3.7	Casa Grande	4.2	Chiricahua	7.9	Gran Quivira	3.5	Montezuma Castle	6.3	Pipe Spring	7.4	Walnut Canyon	6.3	White Sands	7.4	Wupatki	7.4		

* Insufficient data.
Figures only tentatively correct.

* Insufficient data.
Figures only tentatively correct.



AZTEC RUINS---Aztec's presentation should not duplicate that of Mesa Verde National Park in any respect. Care should also be taken that no extensive duplication be had with presentation schemes at Zion, Bryce, Grand Canyon, Casa Grande, and, to a lesser extent, Arches. Paucity of data makes these conclusions very tentative.

Zion-Bryce

16

Grand Canyon

20

Walnut Canyon

6

El Morro

6

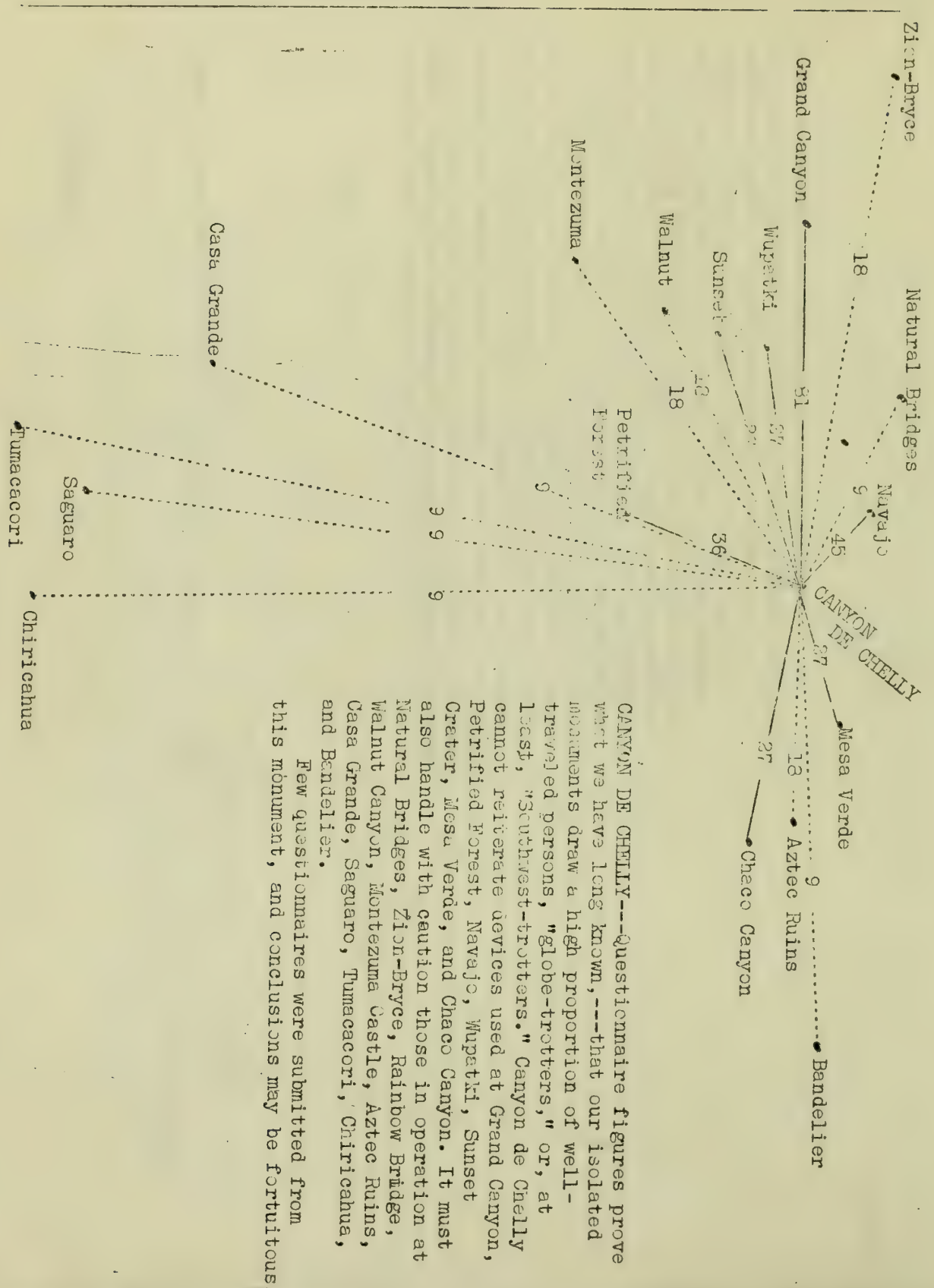
BANDELLIER

8 30

White Sands

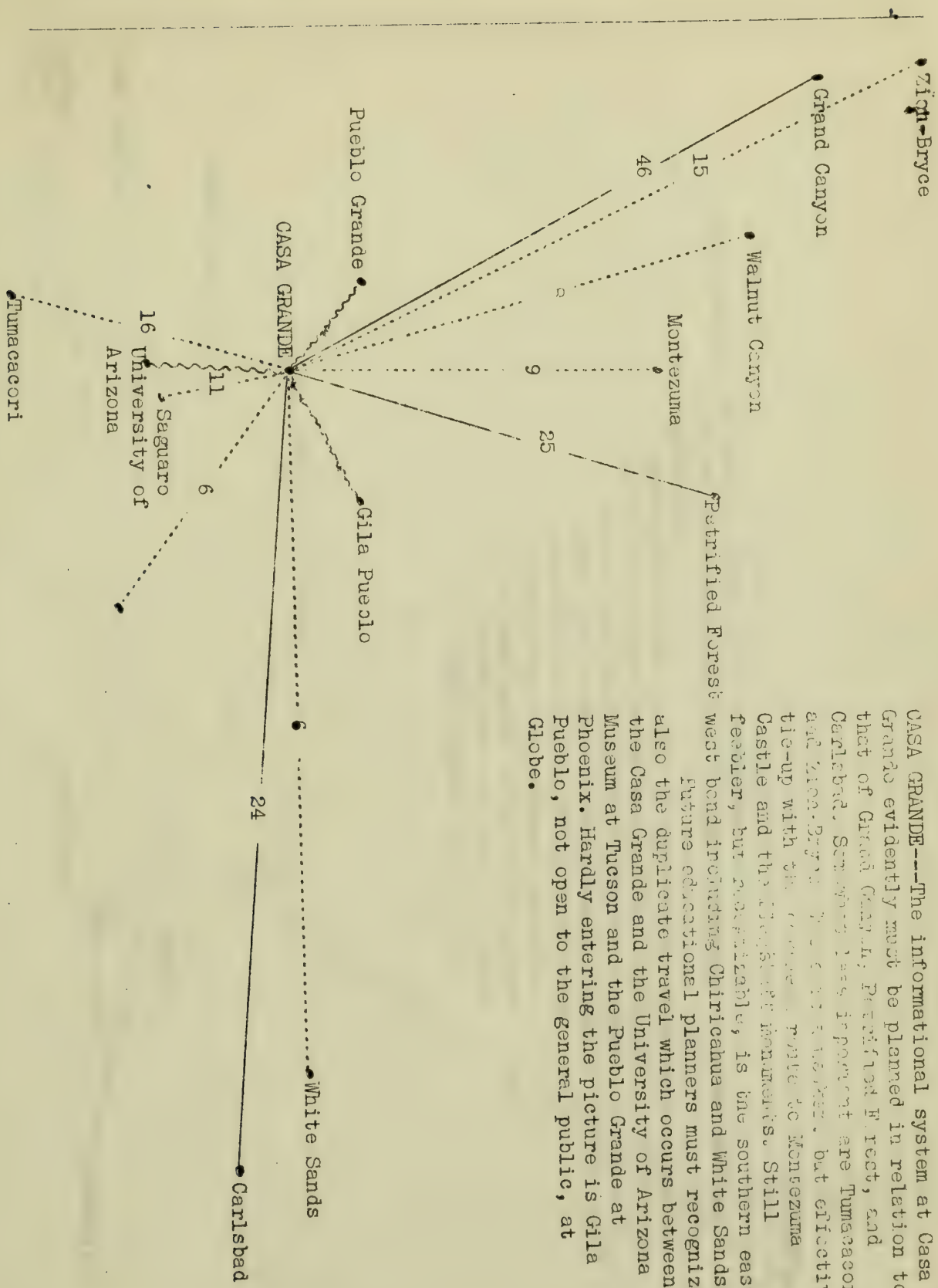
Carlsbad

BANDELLIER---This monument's somewhat peripheral position almost allows it an unhampered presentation scheme, although its exhibits and talks cannot parallel too closely those of Carlsbad and Grand Canyon. Somewhat more tenuous ties exist with Zion-Bryce, White Sands, El Morro, and Walnut Canyon. It is evident that Bandelier derives many visitors from the great horde that traverse US Highway 66 in summer months. Not included in our figures, but certainly a factor to be taken into account, is the necessity for Bandelier to vary its presentation schemes from those used variously at the Laboratory of Anthropology, Museum of New Mexico, and University of New Mexico, all nearby popular attractions. This statement might be widened to include the various branches of the State Museum. Unless all institutions in New Mexico make a conscious effort to attain varied presentation techniques, a well-traveled visitor will soon find his museum tour monotonously repetitious.



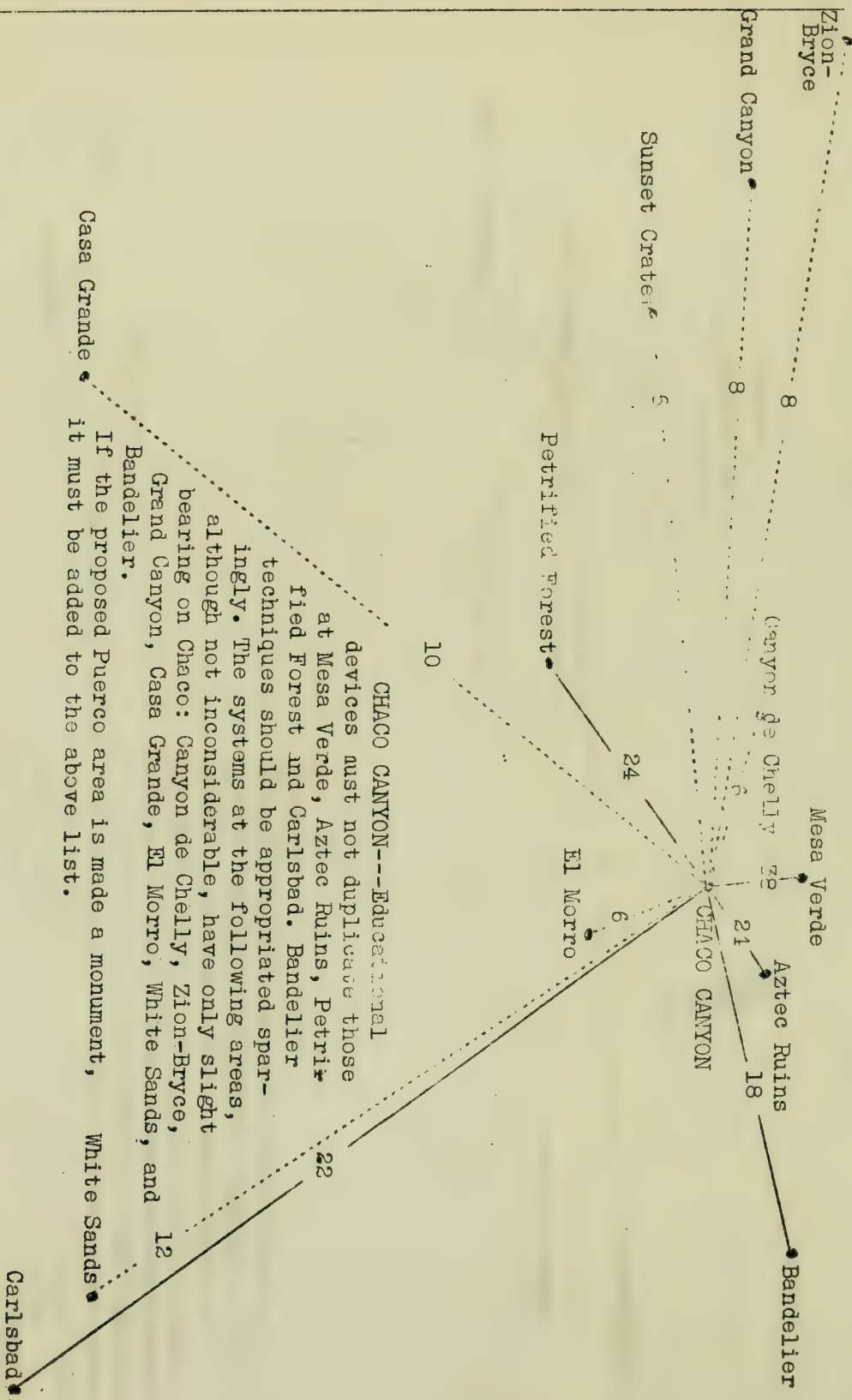
CANYON DE CHELLY---Questionnaire figures prove what we have long known,---that our isolated monuments draw a high proportion of well-traveled persons, "globe-trotters," or, at least, "Southwest-trotters." Canyon de Chelly cannot reiterate devices used at Grand Canyon, Petrified Forest, Navajo, Wupatki, Sunset Crater, Mesa Verde, and Chaco Canyon. It must also handle with caution those in operation at Natural Bridges, Zion-Bryce, Rainbow Bridge, Walnut Canyon, Montezuma Castle, Aztec Ruins, Casa Grande, Saguaro, Tumacacori, Chiricahua, and Bandelier.

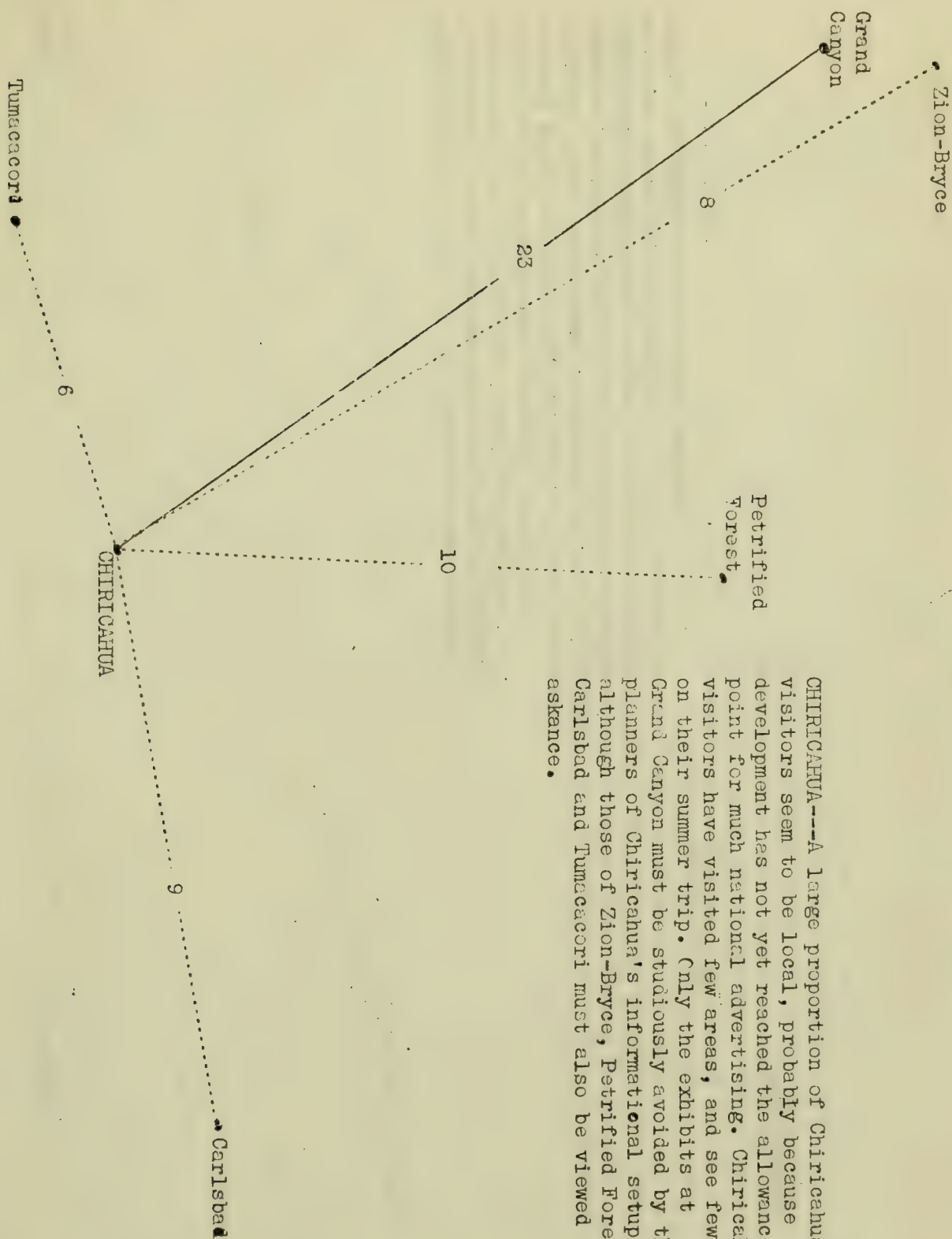
Few questionnaires were submitted from this monument, and conclusions may be fortuitous.



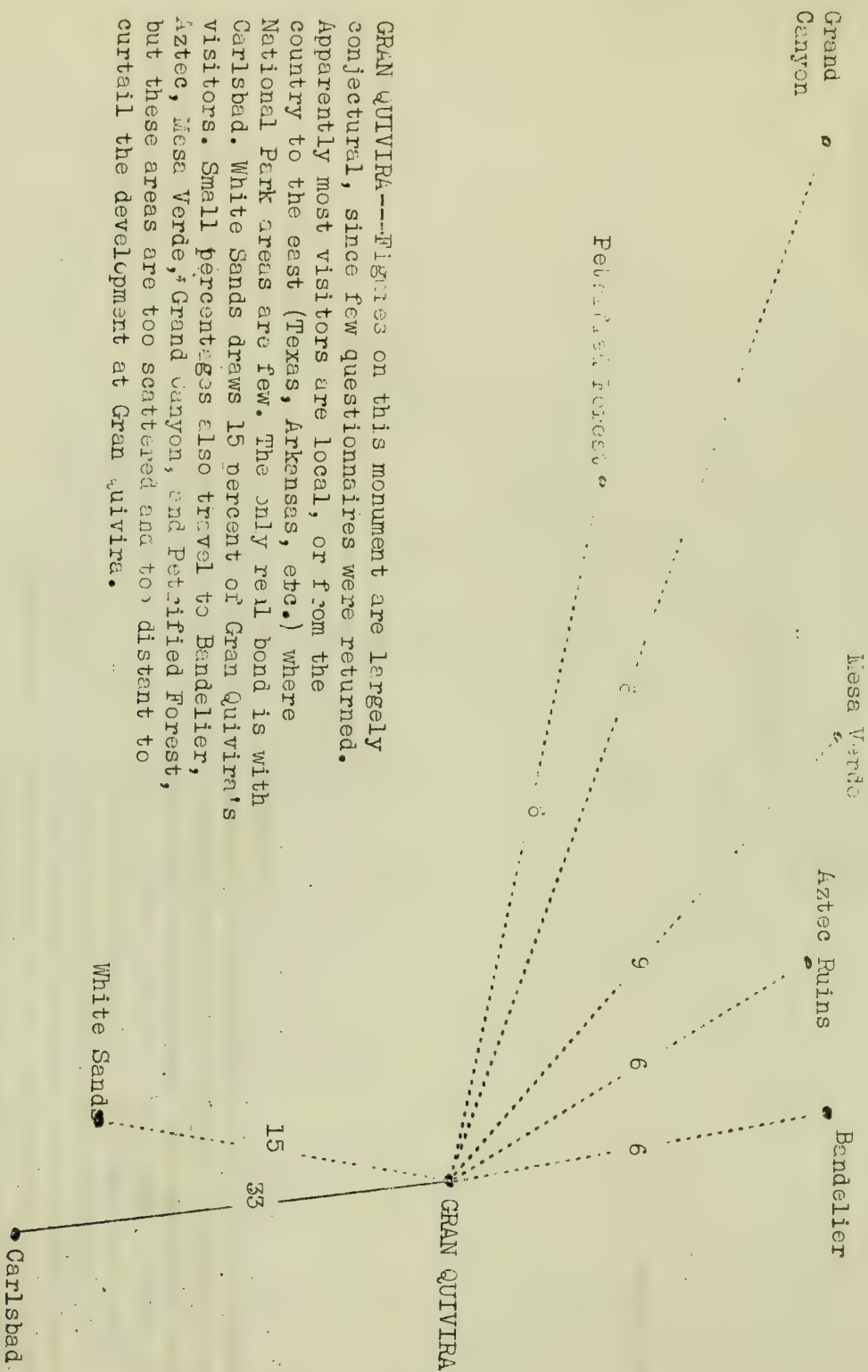
CASA GRANDE---The informational system at Casa Grande evidently must be planned in relation to that of Grand Canyon, Petrified Forest, and Carlsbad. Some of the important are Tumacacori and Ziegler-Bryce. The latter is important, but effective tie-up with the former is possible to Montezuma Castle and the Petrified Forest. Still feeble, but considerable, is the southern east-west bond including Chiricahua and White Sands.

Future educational planners must recognize also the duplicate travel which occurs between the Casa Grande and the University of Arizona Museum at Tucson and the Pueblo Grande at Phoenix. Hardly entering the picture is Gila Pueblo, not open to the general public, at Globe.

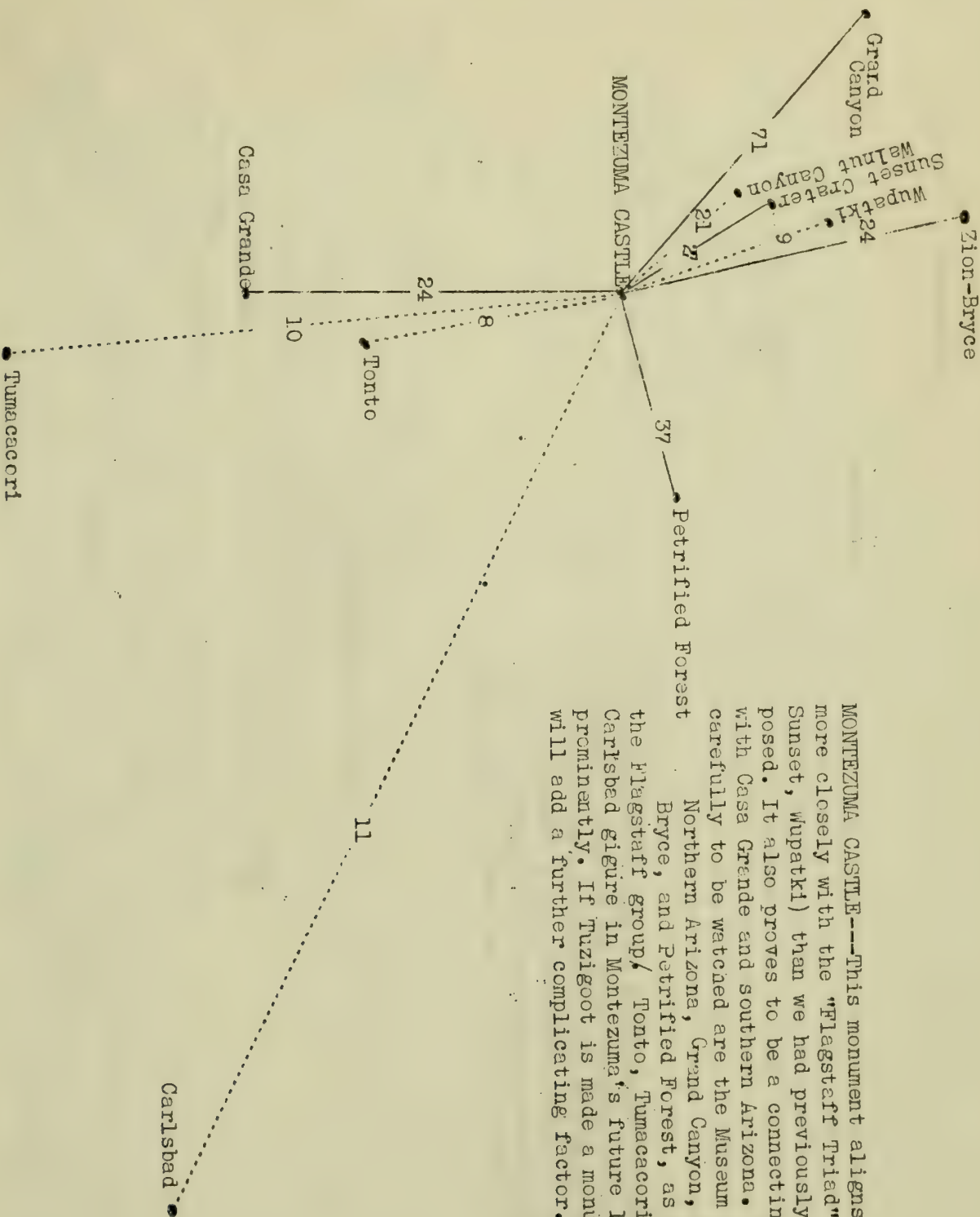




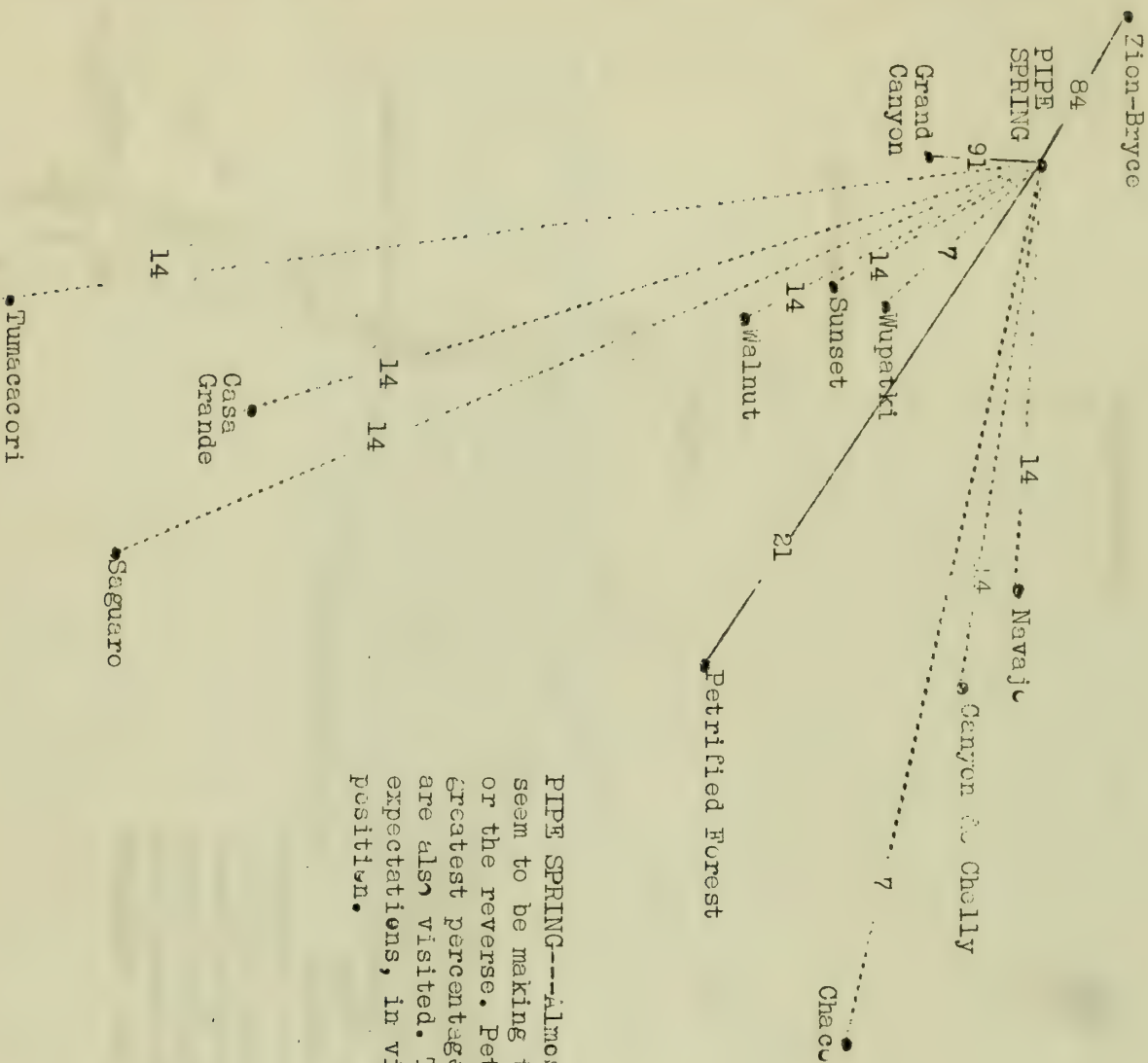
CHIRICAHUA----A large proportion of Chiricahua's visitors seem to be local, probably because development has not yet reached the allowance point for much national advertising. Chiricahua visitors have visited few areas, and see few more on their summer trip. Only the exhibits at Grand Canyon must be studiously avoided by the planners of Chiricahua's informational setup, although those of Zion-Bryce, Petrified Forest, Carlsbad and Tumaacacori must also be viewed askance.



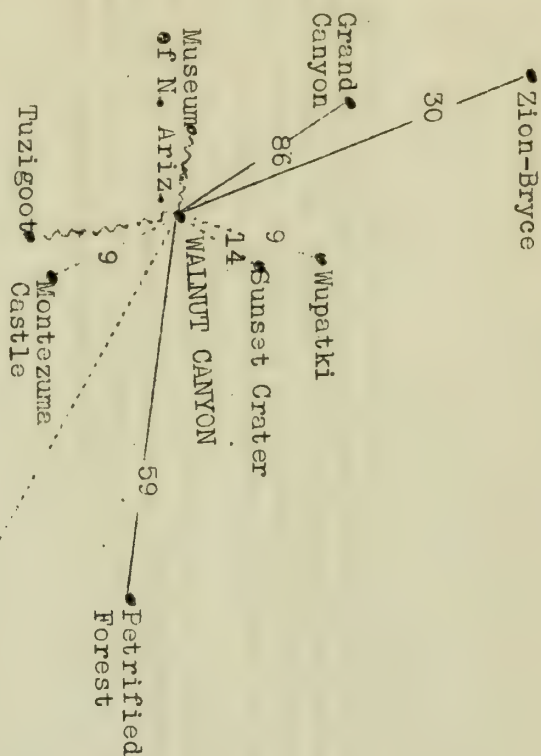
GRAN QUIVIRA---Figures on this monument are largely conjectural, since few questionnaires were returned. Apparently most visitors are local, or from the country to the east (Texas, Arkansas, etc.) where National Park areas are few. The only rail bond is with Carlsbad. White Sands draws 15 percent of Gran Quivira's visitors. Small percentages also travel to Bandelier, Aztec, Mesa Verde, Grand Canyon, and Petrified Forest, but these areas are too scattered and too distant to curtail the development at Gran Quivira.



MONTESZUMA CASTLE---This monument aligns itself more closely with the "Flagstaff Triad" (Walnut, Sunset, Wupatki) than we had previously supposed. It also proves to be a connecting link with Casa Grande and southern Arizona. Very carefully to be watched are the Museum of Northern Arizona, Grand Canyon, Zion-Bryce, and Petrified Forest, as well as the Flagstaff group, Tonto, Tumaacacori, and Carlsbad figure in Montezuma's future less prominently. If Tuzigoot is made a monument it will add a further complicating factor.



PIPE SPRING---Almost all of Pipe Springs' visitors seem to be making the Zion-Bryce-Grand Canyon swing, or the reverse. Petrified Forest receives the next greatest percentage, while many scattered monuments are also visited. This is in accordance with our expectations, in view of Pipe Spring's isolated position.



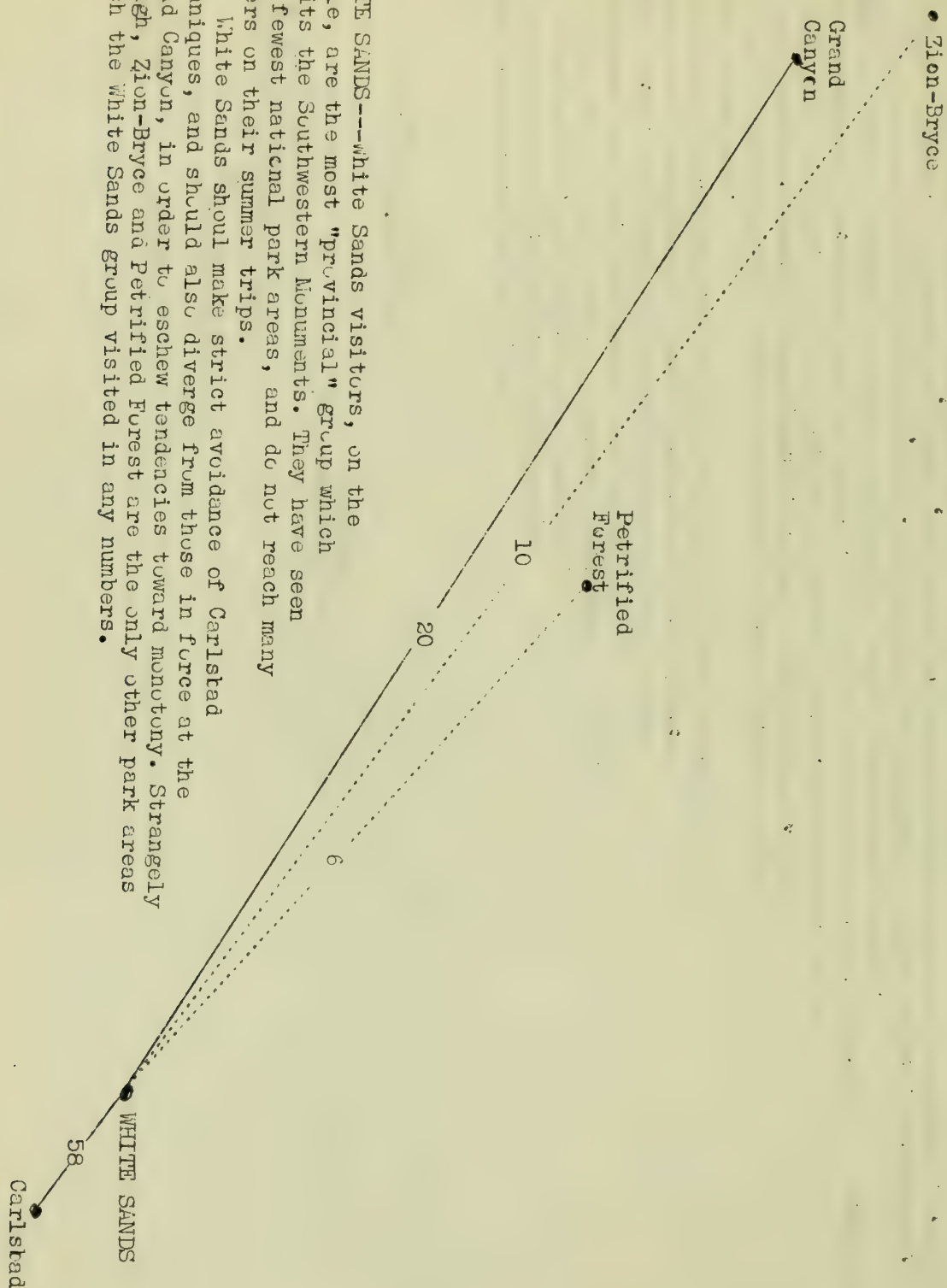
WALNUT CANYON---Walnut is clearly established as one of the western gateways to the Southwest. Its visitors have seen only two park areas before their 1938 summer trip, but visit more than five additional ones before they return home. In tabulating Walnut's questionnaires it was noted that a surprisingly large percentage of its visitors were making far-flung tours of the west with national parks as their objectives.

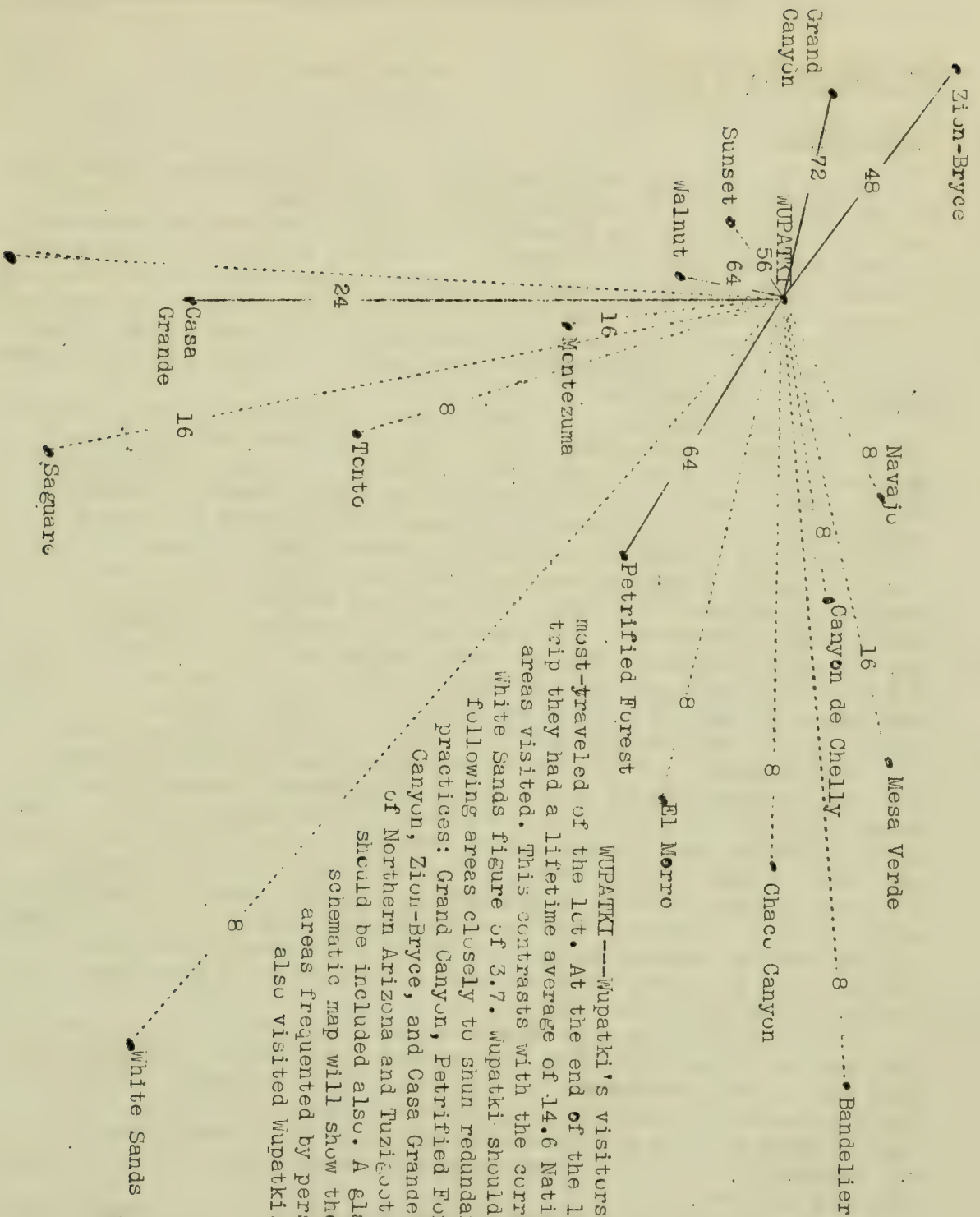
It is manifest that Walnut must present a rather complete story of San Francisco Mountain anthropology, for only nine percent of its visitors see Wupatki, only 14 percent reach Sunset Crater. Conversely, 64 percent of Wupatki's tourists drive to Walnut. This is the present situation; improved entrance roads to Wupatki and Sunset will modify these percentages greatly.

Walnut cannot ape in any particular the exhibits and methods at Grand Canyon, Zion-Bryce, or Petrified Forest. Its formulation must also beware of intimate similarities with Wupatki, Sunset, the Museum of Northern Arizona, Montezuma Castle, Tuzigoot, or Carlsbad.

WHITE SANDS---white Sands visitors, on the whole, are the most "provincial" group which visits the Southwestern Monuments. They have seen the fewest national park areas, and do not reach many others on their summer trips.

White Sands should make strict avoidance of Carlstad techniques, and should also diverge from those in force at the Grand Canyon, in order to eschew tendencies toward monotony. Strangely enough, Zion-Bryce and Petrified Forest are the only other park areas which the White Sands group visited in any numbers.





WUPATKI-----Wupatki's visitors were the most-traveled of the lot. At the end of the 1938 summer trip they had a lifetime average of 14.6 National Park areas visited. This contrasts with the corresponding White Sands figure of 3.7. Wupatki should watch the following areas closely to shun redundant practices: Grand Canyon, Petrified Forest, Walnut Canyon, Zion-Bryce, and Casa Grande. The Museum of Northern Arizona and Tucson doubtless should be included also. A glance at the schematic map will show the many other areas frequented by persons who also visited Wupatki.

RUMINATIONS

By the Boss

About Museums

About every so often it looks like the museum problem bobs up and has its little day. We have noticed, in this last year or so, that various people in our own Service need some orientation about museums. Our own administrators and experts have spoken now and then about the apparent multiplicity of museums among the stations of our Southwestern Monuments somewhat as though they were stumbling over them unexpectedly at every turn and, while they are generally pretty nice about it, we can see they are wondering what we are going to do with all the museums we have and have proposed.

To us, a museum is a tool with which we work and we can no more build an adequate background of the history or pre-history of the Southwest in the mind of the visitor without a museum than you could build a proper house for him without good working tools. A museum, rightly planned, is no luxury in the national monument business; it is a very vital necessity, yielding precedence only to such items as a water supply, personnel housing, administrative housing, and protection of equipment. We will have too many museums as soon as we have too many monuments. You remember that barefooted Arkansas kid who closed all argument with the book peddler by saying, "Shucks, no; you can't sell us airy book, paw's got a book!" Well, we have had that same argument used on us when we spoke of another museum and it was used by people who thought they knew what they were talking about.

Just recently we have had an expert tell us that we must not have any Spanish history at the White Sands museum because White Sands is primarily a geological monument and the visitor will get his Spanish history over at Tumacacori, 400 miles west. The answer is that tho' White Sands visitors don't go to Tumacacori, so we had better have some Spanish history in southern New Mexico, too. The visitor at White Sands has come through several hundred miles of Spanish history and has several hundred more to go; so it won't hurt him to know a little about it. What seems at first glance to be an overlap to our critic is really no such thing.

It is to clear up some such ideas as that that the boys have gathered the figures and King has written his article, beginning on page 522 of this Supplement. Gradually we hope to learn a little about museums. We may, in time, reach the point where we can say this or that will or will not work; but we are sometimes amused, in the meanwhile, to have so much information which isn't so, so freely bestowed upon us.

As an evidence of how much it behooves us all to be modest about our actual knowledge of how people and museums react, I was struck with this little summary from a recent study: "When the individual records were examined, it was found that the route taken by the average visitor was the reverse of that planned by the guide book, 24.4 per cent of the exhibits were examined, 10.9 percent of the labels were

RUMINATIONS (CONT.)

read, and the average time taken by the visitors for reviewing the history of life on earth during the past 500,000,000 years was 21.40 minutes." That looks pretty hopeless, doesn't it? Yet the study was made in one of the large eastern museums where experts had been arranging the exhibits these many years. In view of this, let us not become discouraged, as I sometimes do, if we can't hold our visitors more than an average of 23 minutes where we deal with the last couple of thousand years and have no large halls full of exhibits. We may be doing as well in our little field as the big boys are doing in their field.

If the big fellows who have been working for years at the game can have 75 percent of their exhibits unnoticed and 90 percent of their labels unread, it is certainly time for us to study our visitors with increased attention, for there and there only, can we get the answer to the museum problem.

In the meantime, let's not worry about getting too many museums; I am watching their betting averages pretty closely, and you are welcome to look their figures in the face any time you think one is not delivering real service.

The Boss -

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